



Hyperledger

SUPPLY CHAIN & TRADE FINANCE
SPECIAL INTEREST GROUP



Hyperledger in Action

Supply Chain and Trade Finance

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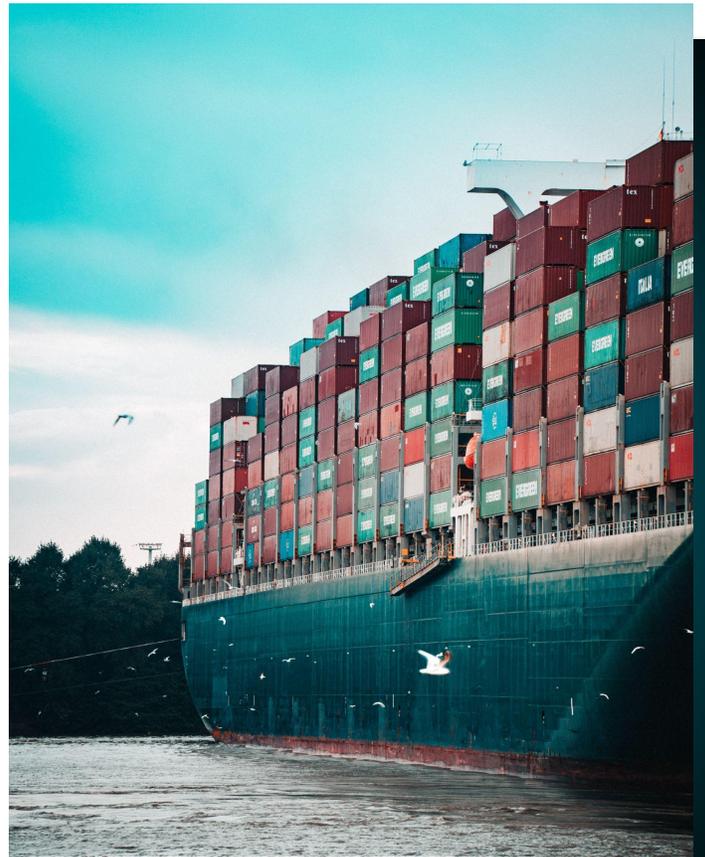


Photo by [Mika Baumeister](#) on [Unsplash](#)

Introduction

Since 2016, the Hyperledger Foundation has been working to build a global community that is open, trusted and impactful at the local level.

We are Global.

A Hyperledger Special Interest Group (SIG) is a community focused on a particular industry, sector or activity with a shared interest in advancing a common understanding of how blockchain technology in general, and Hyperledger technology in particular, may be applicable. Members of a SIG include both technical participants and business-level practitioners. Together they share and discuss common software product needs, lessons learned from the real world, information about related or relevant code or standards from elsewhere, and other information they see fit.

We are Open.

Being open is core to what we do. We're here to lead an open, global and welcoming enterprise blockchain ecosystem. Our aim is to create a neutral, even playing field where no contribution is seen as too small or insignificant and everyone can innovate without worrying about politics or competition.

We are trusted.

Trust is the deciding factor in whether a society can function. Without trust, the system fails. Blockchain technologies are enabling a new era of trusted collaboration that is fundamentally transforming business transactions across new and existing markets.

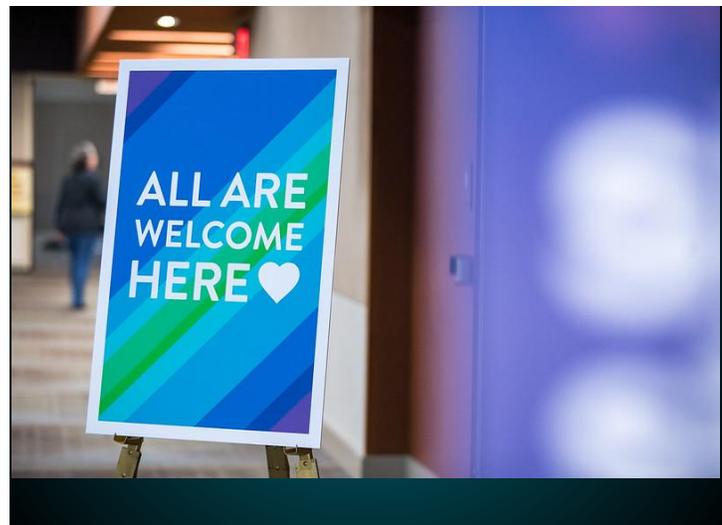
We are building better together.

Hyperledger technologies are increasingly at play in redefining information sharing and transactions for many leading organizations. As the [2023 Forbes Blockchain 50](#) shows, Hyperledger technologies are the standard for companies, including DTCC, Fujitsu, Oracle, Tech Mahindra, Tencent, Walmart and more, that have made blockchain technology a core foundation of their business operations.

Join Us. The journey is just beginning.

“ Our Supply Chain & Trade Finance community is a vibrant part of the Hyperledger ecosystem. This Special Interest Group (SIG) focuses on a critical part of the global economy where the need for sustainable solutions, increased efficiencies, and customer demands intersect - all natural solutions for blockchain in general and the Hyperledger set of open source projects, specifically, add value. I would like to thank all who contributed to this ebook to highlight the successes coming from the Hyperledger community. ”

*Daniela Barbosa,
Executive Director,
Hyperledger Foundation*



What is Hyperledger?

This section provides a high-level overview of the Hyperledger Foundation.

Hyperledger Foundation

The Hyperledger Foundation is the open, global ecosystem for enterprise blockchain technologies. As part of the Linux Foundation, it is a neutral home for developers to collaborate, contribute, and maintain open source software.

Hyperledger was founded in 2015 to bring the transparency and efficiency of DLT technologies to the enterprise market, leveraging the well-proven open source software model.

The high level aim is to enable solutions that connect industries, organizations, and even individuals more directly, recreating how information is shared and business is conducted.

The Hyperledger Foundation hosts a number of open source software projects that serve as the building blocks for enterprise blockchain deployments.

Read Full Overview:

[Hyperledger Foundation Paper](#)

These projects are conceived and built by the Hyperledger developer community as freely available, enterprise-grade software that vendors, end user organizations, service providers, start-ups, academics, and others can use to build and deploy blockchain networks and even commercial solutions.



Because our projects are developed and governed as open source technologies, Hyperledger projects are all community led.

Open Source Development

Open source software development is a transparent process, which is particularly fitting for blockchain technologies. It brings together organizations and individuals with different requirements and drives them to work together to develop common solutions that can be the foundation for mutual success—another good parallel with blockchain.

Hyperledger Foundation Goals



Provide a neutral, open community around enterprise blockchain supported by technical and business governance



Foster the development and adoption of cross-industry platforms powered by distributed ledgers



Educate the public about the market opportunity for enterprise grade blockchain technology

Blockchain for Supply Chain & Trade Finance

Blockchain is being increasingly used in supply chain and trade finance management. Many times the goal starts out as track and trace for financial, customer service, compliance, or sustainability needs and then pivots to value add activities such as reducing disputes, preventing fraud, reducing payment cycles, and shortening shipment times. There is even early evidence for increased sales due to ethical sourcing.

Whether it's early adopters or new startups, they all leverage blockchain catalysts such as:

Increased Transparency: Blockchain technology provides an immutable and tamper-proof ledger that can record every transaction in the supply chain. This helps to increase transparency and accountability, allowing all parties involved in the supply chain to track the movement of goods, reduce fraud, and prevent counterfeiting.

Better Traceability: Blockchain technology can provide end-to-end traceability of products, from the point of origin to the point of consumption. This allows companies to identify and address issues such as quality control, product recalls, and environmental impact.

Compliance: It can provide a single source of truth for compliance information, reducing the risk of non-compliance and associated penalties.

Enhanced Efficiency: Blockchain technology enables real-time tracking of goods in the supply chain, thereby reducing the need for intermediaries and streamlining the entire process. This results in faster and more efficient delivery of goods, reduced costs and improved customer satisfaction.

There is still much room for innovation. Future successes are going to come from effective combinations of ecosystems, standards, and governance.





Hyperledger

SUPPLY CHAIN & TRADE FINANCE

SPECIAL INTEREST GROUP

What is the Supply Chain & Trade Finance Special Interest Group

The Hyperledger Supply Chain and Trade Finance Special Interest Group (SC&TF SIG) represents a global membership of Supply Chain, Logistics, and Trade Finance professionals united in advancing the state of the supply chain industry through the implementation of enterprise-grade technology solutions utilizing the Hyperledger greenhouse of business blockchain frameworks and tools.

Current SIG leaders are Tom Klein, Andrea Frosinini, Alicia Noel, and Jeff Pribich. The SIG welcomes new members with ideas and expertise across different industries, technologies, and enterprises.

SIG Highlights

- The Hyperledger Supply Chain and Trade Finance SIG hosts regular meetings and public webinars with executives from different industries, sharing how they leverage enterprise technologies to improve a range of outcomes. The SIG wiki hosts a library of past webinars and other resources.
- The SIG created and hosts an ongoing weekly news digest, where members can share and learn about current topics of interest in this space.

Please visit [our Wiki](#) or [Linkedin Page](#)

The collage consists of four images:

- Top Left:** A Zoom meeting banner for "Hyperledger Supply Chain & Trade Finance SPECIAL INTEREST GROUP" titled "Blockchain - Sustainable Supply Chain, SDG, Climate & Carbon Credit Tokenization". It lists speakers Tom Klein, Erik Valiquette, Andrea Frosinini, and Alicia Noel, along with a special guest, Kamesh Nagwani.
- Top Right:** A Zoom meeting banner titled "Using Trust Your Supplier to Manage Partnerships and Data" featuring Gary Storr, General Manager of Trust Your Supplier.
- Bottom Left:** A Zoom meeting banner titled "Business Automation in the New Economy of Movement" featuring Tram Vo, CEO and Founder of MOBI.
- Bottom Right:** A LinkedIn post from the Hyperledger Foundation titled "Hyperledger and #SupplyChain". The post shows two men in front of a "Hyperledger Toronto Enterprise Blockchain" banner and includes video player controls.



Supply Chain & Trade Finance Use Cases

Hyperledger in Action

Transparency. Efficiency. Security.
Traceability. Compliance

Photo by [Arno Senoner](#) on [Unsplash](#)



VinAssure Platform

To ensure transparency in every stage in the fine wine distribution supply chain, eProvenance has launched the VinAssure platform using the Hyperledger Fabric blockchain. Through the use of reusable sensors, VinAssure enables eProvenance to know not just if temperatures detrimental for wine have been encountered, but literally whether or not the wine has actually been harmed at any point in the supply chain: wholesalers, distributors, importers, retail. The goal is for wines to reach the customer in the same condition as produced by the winemaker. Grgich Hills Estate uses eProvenance temperature monitoring services to uphold its quality commitment. The use of eProvenance has prevented their wine, damaged from high-temperature exposure, from being sold into the wine market and saved Grgich tens of thousands of dollars in replacement costs.

News Release: [PR Newswire: eProvenance Uncorks VinAssure™, an IBM Blockchain-Powered Platform to Strengthen Collaboration and Optimize the Wine Supply Chain](#)

Article: [Ledger Insights: eProvenance, IBM launch blockchain wine quality solution](#)

Hyperledger Premier Member (IBM) Since 2016



Results

- VinAssure has prevented the wine of one wine producer, damaged from high-temperature exposure, from being sold into the wine market and saved them tens of thousands of dollars in replacement costs.
- One winery took out \$750K to over \$1M of returns (reverse logistics) costs from their customer base

‘No one wants to open a bottle of wine and discover it’s been cooked. When the supply chain fails to maintain proper temperature conditions, that’s precisely what can happen. VinAssure is designed to bring collaboration and clarity to an often-chaotic supply chain.’

Robin Grumman-Vogt, CEO of eProvenance

‘Having an immutable digital record of transactions simplifies processes and represents the future of moving sensitive goods.’

Raj Rao, IBM Blockchain Platforms General Manager



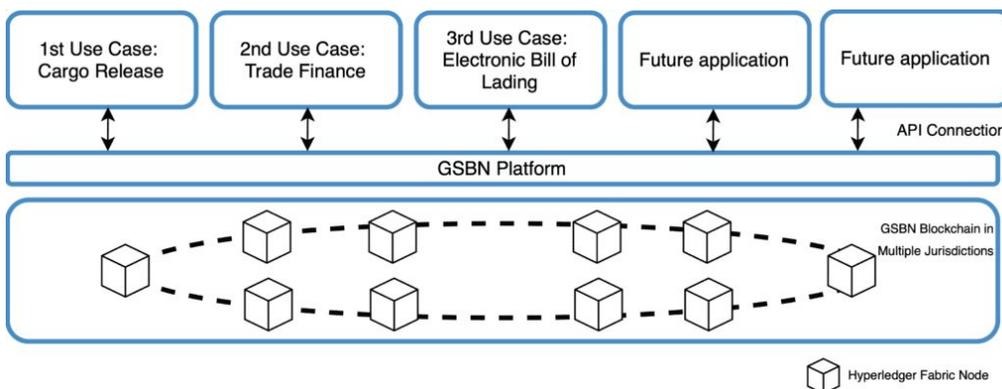
GSBN Platform

GSBN is a trade data utility platform powered by Hyperledger Fabric. It enables the supply chain participants to work collaboratively to accelerate the digital transformation of the industry. GSBN is established as a not-for-profit company, aiming to facilitate the sharing of verified logistics data and streamline operations across the entire supply chain.

It was founded by 8 global shipping lines and terminal operators, accounting for one third of global container shipments. GSBN also signed a MOU with 8 major shipping lines in China to accelerate the digital transformation of the shipping and logistics industry. In addition, GSBN formed the Trade Finance Advisory Group with 3 major Chinese financial institutions, with the aim to help bridge the financing gap by assisting partner institutions in improving their existing processes through leveraging trusted digital data from supply chains.

Member Webinar: [In-depth with GSBN: Next Generation Blockchain Consortium](#)

Member Case Study: [GSBN simplifies global trade with Hyperledger Fabric](#)



Hyperledger General Member since 2021

Results

- Speeds of over 100 transactions per second
- Served over 10,000 customers since March 2021 launch
- More than 1 million shipments handled
- Digitizing Cargo Release process, reduced terminal dwell time by over 24 hours¹

“By eliminating the need for paper, Cargo Release simplifies data exchange and shortens operation time among parties with real-time updates. This cuts the time for cargo to be document ready for release from days to hours.”

**Edmund To, Chief
Technology Officer, GSBN**





Asset Track Freight

The Freight tool on the Asset Track platform created by KNNX, formerly known as DLT Labs, using Hyperledger Fabric and based on Walmart Canada's data needs tracking deliveries from carriers delivering to Walmart retail centers across Canada. Walmart now has visibility into the status of any of their shipments throughout the process, including more than 200 data elements and whether any invoices are being audited. Carriers can input or access data through an easy-to-use web portal or via an API.

Since implementing Freight, the freight payment process has been streamlined from 11 steps to five steps. Days Sales Outstanding have been reduced from more than 30 days to less than 48 hours, and shipment disputes have been reduced from more than 70% to less than two percent. Average industry savings have been close to five percent of annual freight expenses.

Member Case Study: [DLT Labs™ & Walmart Canada Transform Freight Invoice Management with Hyperledger Fabric](#)

SC&TF SIG Webinar: [Pete Gowanlock of DLT Labs: Real Time Freight Invoice Processing](#)

SC SIG Webinar: [Presentation by Shannon Hamilton](#)

Harvard Business Review Article: [How Walmart Canada Uses Blockchain to Solve Supply-Chain Challenges](#)

Hyperledger General Member Since 2017

Results

- The freight payment process is now only five steps, down from 11 steps.
- Days Sales Outstanding went from more than 30 days to less than 48 hours.
- Shipment disputes are down from more than 70% to less than two percent annually.
- ROI has been close to five percent of annual freight spend.

"The biggest improvement for us is the reduction of manual work in resolving disputes. The cost and the waste associated with chasing dispute resolution has come down dramatically - from 70% to now under 2%... helping to save millions of dollars in waste."

John Bayliss, SVP Logistics & Supply Chain Management at Walmart Canada

TradeWaltz Platform

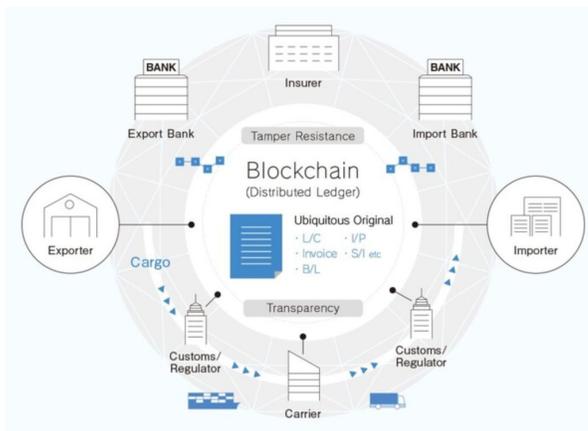
TradeWaltz™ is a cross-industry trade-information collaboration platform built and coordinated by technology provider NTT Data on Hyperledger Fabric. It is intended to digitize global trade, enhance efficiency, reduce costs, and improve access to remote work technologies.

From its founding in 2017 in Japan with 13 members, this consortium has grown to 40 East Asian members as of 2023. Hyperledger Fabric is used as the platform foundation to support exporters and importers, carriers, banks, insurers, and customs regulators in the trusted exchange and regulation of trade-related information such as Letters of Credit (LOC), invoices, electronic Bills of Lading (eBoL), and Intellectual Property.

Member Case Study: [How Tradewaltz is using Hyperledger Fabric to create the future of global trade](#)

SC&TF SIG Webinar: [Update of Digital Trade Platform “TradeWaltz”](#)

TF SIG Webinar: [Create the Future of Trade with Blockchain](#)



Results

- Increased operational efficiency by 47% in actual usage
- Enabled remote work options
- Digitized 85% - 90% of standard trading documents
- Expanded consortium and user base across five economies of the Asian-Pacific region to 140 members

“This solution allows us to see the whole chain in seconds! We can take a jar of baby food and see where it was manufactured and trace back all the ingredients to the farms!”

Satoru Someya, Managing Director, COO, CMO, Head of Global and Alliance business department at TradeWaltz Inc.





Trust Your Supplier

CHAINYARD

Trust Your Supplier Platform

Trust Your Supplier (TYS) is an award-winning industry-agnostic supplier management platform, developed by Chainyard and IBM with input and guidance from a cross-industry advisory board. This collaboration enabled them to build a versatile system while creating global and industry standards for supplier information. TYS provides a single enterprise-wide solution for supplier lifecycle and risk management, allowing different business divisions to collaborate on risk mitigation, cost reduction, and preparation for ever-changing supply chain regulations. The platform embeds information from third-party verifiers, including Moody's Analytics and Dun & Bradstreet, into supplier and buyer profiles.

One customer's business case showed reduced supplier onboarding cycle time from 25.4 hours to 4.5 hours, or 82%, saving \$1.5M. They also reduced aggregated supplier screening time more than 100 hours, saving \$2.5M, quality assessments by 26%, and performance audits by 50%, saving an additional \$2.1M.

Member Case Study: [Chainyard and IBM Reduce New Vendor Risk & Drastically Cut Onboarding from 60 to 3 Days with Hyperledger Fabric](#)

Member Webinar: [Supplier Digital Passport using Trust Your Supplier-Chainyard](#)

SC&TF SIG Webinar: [Gary Storr of Chainyard's Trust Your Supplier Platform](#)

Harvard Business Review Article: [A Remedy for the Supplier Onboarding Problem](#)

[Trust Your Supplier White Paper](#)

Hyperledger General Member Since 2018



Results

One customer's business case showed:

- reduced supplier onboarding cycle time from 25.4 hours to 4.5 hours, or 82%, saving \$1.5M
- Aggregated supplier screening time for once customer was reduced more than 100 hours, saving \$2.5M, quality assessments by 26%
- Performance audits for one customer were reduced by 50%, saving an additional \$2.1M

"Trust Your Supplier is a cross-industry blockchain platform that is compellingly different from any other platform in existence today. This platform will make life simpler for both suppliers and buyers, and create massive savings for chief procurement officers."

Gary Storr, General Manager, Trust Your Supplier





Vertrax Platform

Vertrax is an innovative provider of Supply Chain Management technology solutions within the oil and gas bulk liquid distribution supply chain. Vertrax designed and implemented a blockchain solution built on Hyperledger Fabric using the IBM Blockchain platform on AWS and integrating with their existing oil and gas logistics systems and IoT devices.

This implemented blockchain solution provides total asset visibility and significantly reduces supply chain costs. The project delivered on the objective of providing bulk transporters visibility into the 'end-to-end' and 'last mile' supply chain, enabling the delivery of more gallons over fewer miles.

This Hyperledger blockchain solution enabled transporters to deliver 17% more gallons with the same number of transports while traveling 70,000 fewer miles. At over \$5.00 - \$10.00 per mile, the cost savings in transports ranges from \$350,000 to \$700,000.

IBM Video: [IBM Blockchain Platform for Multicloud | Vertrax & Chateau Software Story](#)



Hyperledger Premier Member (IBM) Since 2016

Results

- Transporters can deliver 17% more gallons with the same number of transports while traveling 70,000 fewer miles.
- At over \$5.00 - \$10.00 per mile, the cost savings in transports ranges from \$350,000 to \$700,000

"We've proven the technical aspects of the network and are in production. And this is just one user case - the first of many - proving the value of the Vertrax Blockchain. We anticipate working with IBM Global Services to develop integration projects leveraging their expertise in management, integration, onboarding and custom analytics software development for participants in new blockchain networks based on the Vertrax Blockchain."

Vinny Mullineaux
CEO at Vertrax



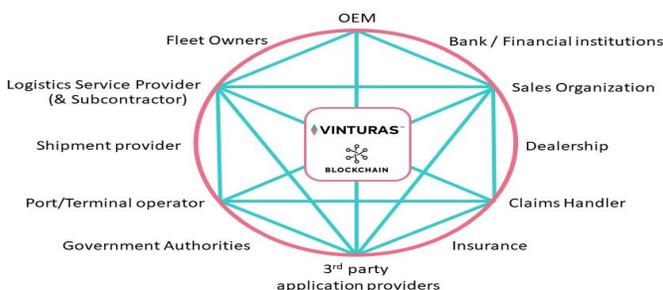


Vinturas Platform

Based in Groningen, The Netherlands, Vinturas was founded in 2019 with assistance from technical partner, IBM. Vinturas' mission is to utilize enterprise blockchain technology, Hyperledger Fabric, to provide an interoperable network solution for the end-to-end supply chain in the finished vehicle industry. Using private permissioned blockchain technology, Vinturas allows for multiple parties to safely access transactional information including documentation and photographs.

According to Vinturas CEO Ronald Kleijwegt, the supply chains for cars, truck and farm equipment are expensive, time consuming and siloed. It is comprised of spreadsheets, emails and volumes of paperwork. Partnering with multiple logistic providers, Vinturas has created a cloud-based solution that benefits manufacturers, logistic service providers, lease companies, car rental companies, fleet owners and car dealers. By providing real-time information to approved parties, there is a reduction in costs and paperwork associated with each vehicle

Article: [Innovation Origin: Vinturas' Digital Blockchain Platform Eliminates the Need for Spreadsheets to Transport and Trac Vehicles](#)



Results

Savings of \$3-\$10 per finished vehicle.

New Industry Partnership
- Mitsubishi Motors Europe (MME) has implemented the Vinturas interoperable network solution for the launches of the New Generation ASX and the All-New COLT.

“There is significant opportunity to accelerate the digitization of the Finished Vehicle industry, moving from paper-based, manual processes for documentation, milestone commitments and record-keeping to entirely online collaboration and communication.”

Ronald Kleijwegt, CEO, Vinturas



Hyperledger Premier Member (IBM) Since 2016

Please visit: <https://www.vinturas.com/>

Additional Projects

In this section we include projects that don't yet have publicly available numeric benefit, are not yet in production but provide some unique value, are broad-based, or ones focused on standards.



UAE Trade Connect

UAE Trade Connect is a consortium comprised of 11 UAE banks utilizing blockchain technology to streamline trade transactions. Avanza used Hyperledger Fabric to build a platform that has enabled the consortium to achieve reduction in duplicate and fraudulent trade invoices. Since the launch, UAE Trade Connect has processed invoices valued at over AED 43 billion (\$11.7 billion).

The number of invoices processed by the platform continues to increase. It is currently processing about 30,000 invoices per month, with an average value of AED 4.8 billion (\$ 1.31 billion). Until June 2022, the platform UAE trade connect identified 20 inter-bank duplicates (with 7 out of 9 consortium banks finding the duplicates), worth AED 10 million (\$ 2.7 million).

SC&TF SIG Webinar: [UAE Trade Connect a successful blockchain case study](#)

Hyperledger General Member (Avanza) Since 2019



bConnect

bConnect is a cross-border paperless trade database that enables Authorized Economic Operators (AEO) to exchange their master data, via permissioned access, according to the guidelines of the Trader Identification Number of the World Customs Organization. The platform was created by Brazilian state-owned IT firm Serpro using Hyperledger Fabric and is now used for trade between five Mercosur member countries.



[Project description \(in Portuguese\)](#)

Additional Projects



Botanical Water Exchange (BWX) for Sustainable Water

Fujitsu used their “Track and Trust” product based on Hyperledger Fabric to create a Water Impact Credits (WICs) exchange for tracking water sourced from agricultural processing. The BWX goal is to allow water sellers, corporate water users, and accredited NGOs to purchase offsets and provide purified water for distribution to 100M consumers by 2025.

More information: [Hyperledger Case Study Mar 2023](#)

Hyperledger Premier Member (Fujitsu) Since 2016



MOBI

MOBI is a global nonprofit alliance of the world’s largest vehicle manufacturers along with startups, NGOs, transit agencies, insurers, toll road providers, smart city leaders, financial institutions and tech companies, working together to foster public and private sector collaboration and pave the way for more efficient, sustainable, decentralized mobility ecosystems.

SCTF SIG Webinar: [Tram Vo, MOBI CEO and Founder: Business Automation in the New Economy of Movement - Tram Vo, MOBI CEO and Founder](#)

Hyperledger Associate Member Since 2018



Additional Projects

Logivity



ORACLE®



Logivity's goal is to provide transportation ecosystem members, such as shippers and carriers, with data integrity and control utilizing blockchain technology over the lifecycle of a shipment, from transport booking to delivery to increase efficiency and reduce cost of shipment bookings and tracking data, while improving sustainability by enabling more deliveries with fewer trips. They have already processed tens of thousands of European road shipments across multiple carriers.

Hyperledger General Member Since 2017

GoGas



GoLedger



PETROBRAS



The GoGas platform offers APIs to manage natural gas transport, delivery and storage logistics, focusing on Brazil and Latin America. GoGas was designed and built using Hyperledger Fabric by GoLedger, in collaboration with Brazilian state-owned petroleum multinational Petrobras, to support the natural gas industry in the region by ensuring transparency, efficiency and compliance. It is expected to reduce availability issues and deliver gas more efficiently, resulting in greater customer satisfaction and a more reliable supply chain. GoGas also aims to reduce fines for inconsistencies in data recorded in spreadsheets, which are approximately R\$ 69 million per year.

Climate Action SIG Webinar: [GoGas: a Blockchain Distributed Platform for Natural Gas Inventory and Carbon Credits](#)

Hyperledger Premier Member Since 2023



Circular employs blockchain as a tool to provide transparency and traceability within complex supply chains, including industries like mining, automotive, electronics, and more. In January 2023 StoreDot, the pioneer of extremely fast charging battery technology for electric vehicles, partnered with Circular to track the provenance and CO2 emissions of the raw materials used in its battery cells and its manufacturing to verify its responsible, sustainable, and ethical sourcing practices. To ensure every bag of the key mineral Tantalum mined from Rwanda is ethically sourced, in 2018 Circular deployed Hyperledger Fabric to trace production from three mines and the ore sorting facility. The platform provides the traceability needed to prove every bag is processed under OECD conditions without child or slave labor.





Hyperledger Foundation

An Overview of the Foundation

Hyperledger Projects

The Hyperledger Foundation helps build communities by gathering people sharing a common interest in developing blockchain related software. Today, there are various blockchain technologies being developed across the Hyperledger community. The Hyperledger Foundation hosts a variety of platforms that serve as the foundation for blockchain networks across a range of industries and use cases. All projects are open source, which means that you can download and use the software free of charge as all source code is licensed under the Apache 2.0 license.

The term “project” within Hyperledger refers to a collaborative endeavor to deliver a work item. Each project has its own name, developer community and goals.

The project categories consist of:

- **Distributed Ledgers**

- [Hyperledger Besu](#)
- [Hyperledger Fabric](#)
- [Hyperledger Indy](#)
- [Hyperledger Iroha](#)
- [Hyperledger Sawtooth](#)

- **Tools**

- [Hyperledger Anoncreds](#)
- [Hyperledger Bevel](#)
- [Hyperledger Cacti](#)
- [Hyperledger Caliper](#)
- [Hyperledger Cello](#)
- [Hyperledger Firefly](#)
- [Hyperledger Solang](#)

- **Libraries**

- [Hyperledger Aries](#)

The [Project Lifecycle](#) for all projects consists of six possible states and our project landscape image below displays our Graduated and Incubating Projects:

- Graduated - Projects seeking to graduate from Incubation must meet the criteria defined in the Incubation Exit Criteria
- Incubating- Approved project proposals enter into Incubation

[Hyperledger Labs](#) provides a space (i.e., GitHub repos) where work can easily be started without the creation of an official project. It is a space where we see vibrant innovation and testing of ideas.

Hyperledger DLTs

Hyperledger Tools

Hyperledger Libraries



HYPERLEDGER
FABRIC



HYPERLEDGER
BESU



HYPERLEDGER
CACTI



HYPERLEDGER
BEVEL



HYPERLEDGER
ARIES



HYPERLEDGER
INDY



HYPERLEDGER
IROHA



HYPERLEDGER
CALIPER



HYPERLEDGER
CELLO



HYPERLEDGER
SAWTOOTH



HYPERLEDGER
SOLANG



HYPERLEDGER
FIREFLY



HYPERLEDGER
ANONCREDS

Hyperledger Fabric



Hyperledger Fabric, the most widely deployed enterprise blockchain platform according to the report from [Blockdata](#). It offers performance at scale while preserving privacy making it the DLT chosen by more of the top 100 public companies than any other platform. Built with a modular, flexible architecture with plug-and-play support for components, such as consensus and membership services.

Hyperledger Fabric is intended as a foundation for developing applications or solutions with a modular architecture. Hyperledger Fabric allows components, such as consensus and membership services, to be plug-and-play. Its modular and versatile design satisfies a broad range of industry use cases. It offers a unique approach to consensus that enables performance at scale while preserving privacy.

[> Learn More](#)

Watch introductory video:



GET THE CODE

CONTRIBUTE

Community Work with Hyperledger

As you can see throughout this ebook, the Hyperledger community is actively advocating, developing and deploying blockchain technology.

The Hyperledger team, working with our Foundation members, have been following closely the activities and projects that are using Hyperledger technology.

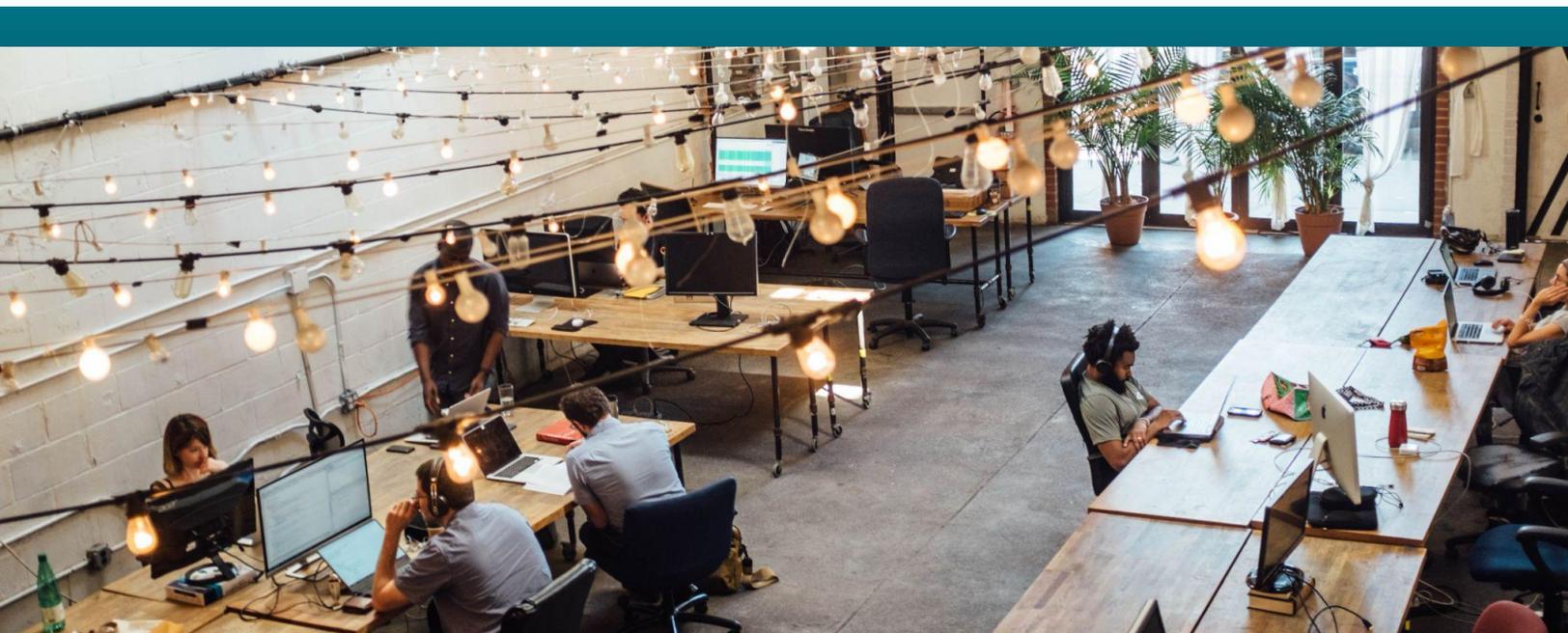
We know there are many public and not-yet-public examples exploring and using Hyperledger Besu, Hyperledger Fabric, and Hyperledger Iroha, as well as other DLTs. We hope this overview provides you with a good summary of those efforts.

- [Hyperledger Use Case Tracker](#)
- [Hyperledger Case Studies](#)
- [Follow us on social media](#)
 - [LinkedIn](#)
 - [X @Hyperledger](#)

How else can you get involved in the work happening at Hyperledger Foundation?

- Join as a Hyperledger Foundation member. Our member companies are industry-leading organizations, big and small, working on these exciting projects. Stand out and be seen as a leader in the enterprise blockchain space. [Learn more about membership.](#)
- Download and learn more about our [Projects](#)
- Participate in our open communities, like our [Supply Chain and Trade Finance SIG](#), [Financial Markets SIG](#), [Telecom SIG](#), [Public Sector SIG](#) and more!
- Deep dive into Hyperledger projects with [training and certifications.](#)
- Attend other [Hyperledger events](#) and [Webinars](#)

Photo by [Shridhar Gupta](#) on [Unsplash](#)



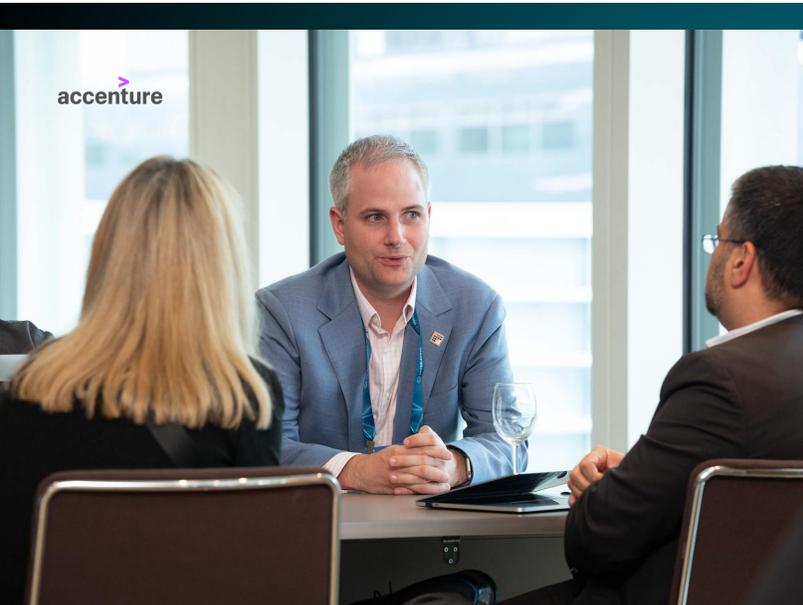
Certified Service Providers and Training Partners

The Hyperledger Certified Service Provider (HCSP) program is a pre-qualified tier of vetted service providers who have deep experience helping enterprises successfully adopt Hyperledger technologies.

HCSP partners offer Hyperledger support, consulting, professional services and training for organizations embarking on their Hyperledger journey.

The HCSP program ensures that enterprises get the support they're looking for to roll out new applications more quickly and efficiently, while feeling secure that there's a trusted and vetted partner that's available to support their production and operational needs.

Hyperledger Training Partners offer instructor-led classes and custom workshops featuring Hyperledger frameworks and tools to help meet the growing need for professionals with blockchain skills.



Hyperledger Global Forum

Hyperledger Global Forum is the biggest annual gathering of the global Hyperledger community. It is a unique opportunity for contributors, members, service providers and enterprise end users from around the world to meet, align, plan and hack together in person. The event is open to any and all who are involved or interested in using, developing or learning more about Hyperledger open source enterprise blockchain technologies.

Attendees can hear directly from those who are actively developing and deploying Hyperledger technologies, as well as technology and business leaders who are shaping the future of enterprise blockchain. They also have the opportunity to talk directly with Hyperledger project maintainers and the Technical Oversight Committee, collaborate with other organizations on ideas that will directly impact the future of the Hyperledger Foundation, and promote their work among the communities.

We are looking forward to seeing you again at the HGF 2024! Please follow our [Events page](#) for further information.

Sessions on Supply Chain:

- [Blockchain - Sustainable Supply Chain, SDG, Climate & Carbon Credit Tokenization](#) - Kamlesh Nagware, Snapper Future Tech
- [Saudi Aramco, Procure to Pay Eco-System](#) - Ali Safri, Avanza Innovations & Abdullah M Askari, Saudi Aramco
- [Accelerated Hyperledger Fabric for Supply Chain Applications in Semiconductor Industry](#) - Muthukumar Kumaraswamy & Haris Javaid, AMD
- [Demo: Chronicle - Delivering Blockchain-backed Provenance with Hyperledger Sawtooth, BTP](#) - Csilla Zsigri & Duncan Johnston-Watt, BTP

[Watch all the sessions from HGF 2022 here](#)



About the Authors



Tom Klein

Co-Chair, Hyperledger Supply Chain + Trade Finance SIG



Alicia Noel

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