HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

2019

Hyperledger Annual Report

Hyperledger is an open source collaborative effort created to advance cross-industry blockchain technologies hosted by the Linux Foundation.

It is a global collaboration including leaders in finance, banking, healthcare, supply chains, manufacturing and technology. We are a community of many enterprise blockchain technology projects including distributed ledger frameworks, smart contract engines, client libraries, graphical interfaces, utility libraries and sample applications. Hyperledger was first launched in December 2015.

121,178
Hyperledger Project Contributions to Date

65,750
Hyperledger Meetup Members

196,592
Registrations for Hyperledger blockchain courses at EdX

Hyperledger Overall Growth

55+
New Members Added in the Last 12 Months

62,800+
Twitter Followers

1.7M+
Web Pages Viewed in 2019

165,000+
Views on the Hyperledger Blog in 2019

Hyperledger Fabric is now available on all major clouds

Google Cloud

Alibaba Cloud

Microsoft Azure
CloudYuga.Guru

IBM Cloud

SAP

amazon web services

Bai du 百度

HUAWEI

Tencent 腾讯

ORACLE

salesforce

New Premier Member Snapshot

CONSENSYS

New General Member Snapshot

Microsoft

salesforce

Cargill

splunk>

60+ Associate Members Including Academia

UNIC | Institute For the Future

ENTERPRISE ETHEREUM ALLIANCE

University of Nicosia was the very first University to offer a degree in Hyperledger.

The Enterprise Ethereum Alliance joined as an associate member and is a true example of Hyperledger building a bridge with the Ethereum community. With hundreds of member companies combined, the EEA and Hyperledger communities represent a wide variety of business sectors from every region of the world.

Adoption & End-Users

Prominent Use Cases

Walmart

Walmart implemented blockchain technology to help decentralize the food supply ecosystem.

In fact, it has recently announced that it will start requiring all of its suppliers of fresh leafy greens (like salad and spinach) to trace their products using the system.

Key results:

- Walmart can now trace the origin of over 25 products from 5 different suppliers using a system powered by Hyperledger Fabric.

Honeywell AEROSPACE

Honeywell created an Amazon-type marketplace for used aircraft parts using Hyperledger Fabric.

Key Results:

- $4 million in sales in less than a year
- More than 50 vendors with storefronts in the new marketplace
- Purchase time reduced from days to minutes
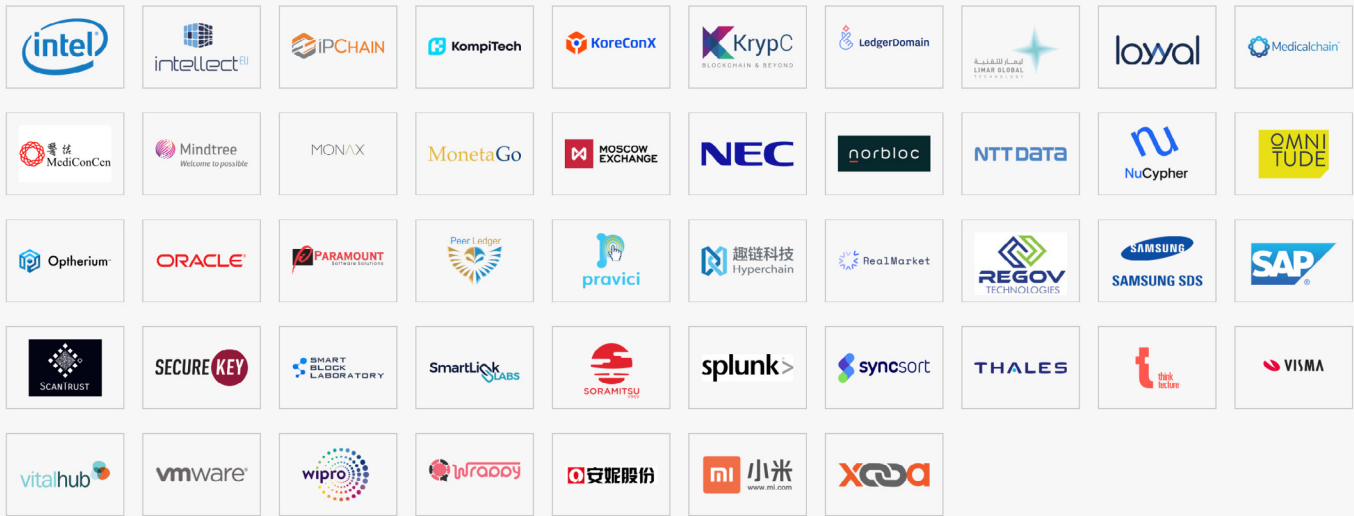- Future boost to anti-counterfeit measures

British Columbia

The government of British Columbia wanted to create an open software stack that helped business people establish trusted and enduring digital relationships to help governments cut red tape.

Key results:

- First demonstration project, Orgbook BC, announced January 2019
- Includes digital IDs for 529,000 companies and 1.4 million credentials
- Similar services coming soon from other jurisdictions

Companies Actively Building Products and Services Powered by Hyperledger

accenture | ALTOROS | 蚂蚁金服 ANT FINANCIAL | B9 lab | BITMARK | BlackRidge TECHNOLOGY | BLOCKCHAIN RESEARCH INSTITUTE | Blockchain Technology Partners | BLOCKDAEMON | BLOCWATCH

bloq | CARDSTACK | ChainNinja | 智链万源 | CHAINYARD | circulor | CISCO | coinplug | CONSENSYS | cpqd

CULedger | dmx.io | Deloitte. | DEUTSCHE BÖRSE GROUP | 点融 DIANRONG | digicert | DLT LABS | DLT | evernym | exactpro

FILAMENT | FinFabrik | FORFIRM | FUJITSU | GLOBCAD | healthverity | HITACHI Inspire the Next | HUAWEI | IBM | intain

Hyperledger Conferences & Events

HYPERLEDGER GLOBAL FORUM

- 737 Attendees from 57 countries
- 492 companies represented with 145 members
- 332 CFP submissions
- 12 Diversity scholarships provided
- Attendance – 83% male, 15% female
- Diversity Happy Hour with 200 attendees

HYPERLEDGER MEMBER SUMMIT

- Tokyo, Japan
- 162 attendees from 94 member companies

Official Hyperledger Certified Service Providers

Hyperledger announced its Certified Service Provider (HCSP) program in November 2019 to support the work of organizations that are helping enterprises adopt Hyperledger. The HCSP program offers service providers from around the world training and professional certification that ensures each member has the mastery to install, configure, operate, manage and troubleshoot networks built on Hyperledger distributed ledger technologies (DLTs). HCSPs for Hyperledger Fabric include:

accenture   蚂蚁金服 ANT FINANCIAL   CHAINYARD   IBM   众享比特 PeerSafe   纸贵科技

CERTIFIED HYPERLEDGER FABRIC ADMINISTRATOR   **CERTIFIED HYPERLEDGER SAWTOOTH ADMINISTRATOR**   **CERTIFIED HYPERLEDGER FABRIC DEVELOPER**

Launched Certified Hyperledger Fabric Administrator (CHFA) exams & Launched Certified Hyperledger Sawtooth Administrator (CHSA)

Certified Hyperledger Fabric Developer (CHFD) exam

540+
Registrations

2020
Coming in Q1

edX Course Enrollment

Introduction to Hyperledger Blockchain Technologies (LFS171x)

141,962

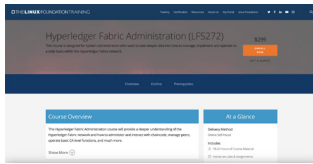Enrollments (launched October 2017)

Blockchain: Understanding Its Uses and Implications (LFS170x)
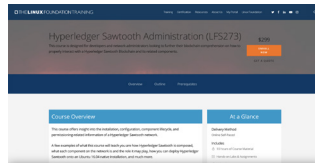
54,630

Enrollments (launched August 2018)

4 New eLearning Courses Launched in 2019

Hyperledger Fabric Administration (LFS272)

Hyperledger Sawtooth Administration (LFS273)

Hyperledger Sawtooth for Application Developers (LFS174x)

Identity in Hyperledger: Indy, Aries and Ursa (LFS172x)

Coming Up

Becoming an Indy and Aries Developer (LFS173x)
Coming early 2020

Hyperledger Fabric for Developers (LFD272)
Paid elearning course coming January 2020

Training Partners

Hyperledger Project Updates & Milestones

At a Glance

15
Projects

1,623
Contributors to Date

121,178
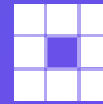Contributions to Hyperledger
Projects to Date

Milestones

HYPERLEDGER FABRIC

V1.4 LTS

HYPERLEDGER SAWTOOTH

1.2

HYPERLEDGER QUILT

1.0

HYPERLEDGER INDY

Production Ready

HYPERLEDGER IROHA

Production Ready

New Projects

HYPERLEDGER ARIES

HYPERLEDGER AVALON

HYPERLEDGER BESU

HYPERLEDGER GRID

HYPERLEDGER TRANSACT

HYPERLEDGER URSA

Hyperledger Labs Data

25
Labs proposed

20
Labs accepted

1
Labs graduated to project

Community Events

Meetup Events

170+
Meetup Groups

78
Countries

348
Meetup Events in 2019

64,412
Meetup Members

Speaker Bureau Highlights

64 Active Hyperledger Member Speakers

Hyperledger's speaker bureau program has more than doubled in size since 2018. Community speakers spoke at more than 15 events, including Consensus, Blockchain Expo Global, Open Source Summit Europe, The Next Web Hard Fork and Blockchain Revolution Global

Hyperledger Labs Data

17
Intern Projects

25
Mentors

17
Mentees

19,000%
Increase in pool of applicants from 2017 to 2019

The Hyperledger Mentee/Mentor Program provides a structured path to raise awareness of Hyperledger at academia, onboard young diverse developers, and it offers the mentorship opportunity to those in the community who desire to teach and guide new developers.

Community Engagement

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. SIGs differ from Hyperledger Working Groups (WG) in that WGs are focused on the development of the Hyperledger software projects and are not tied to a specific sector

1,819
Participants Across All SIGs
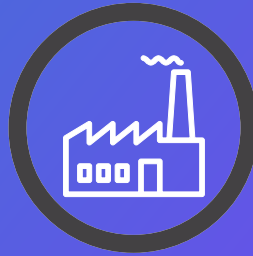
14
WGs & SIGs

1,801
Participants Across All WGs

4 New SIGs Launched

Capital Markets

Telecom

Supply Chain

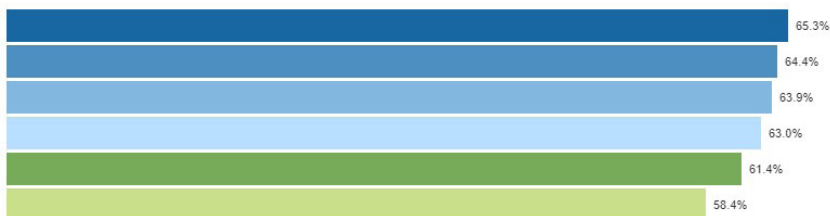**Education Architecture**

2 New WGs Launched

Smart Contracts

Diversity, Civility, and Inclusion

Blockchain Industry By the Numbers

IDC
ANALYZE THE FUTURE

Top Use Case Based on 5 Year CAGR (2018 - 2023) (Value (Constant Annual))

	65.3%
	64.4%
	63.9%
	63.0%
	61.4%
	58.4%

● Asset/Goods Management ● Warranty claims ● Lot Lineage/Provenance ● Trade Finance & Post Trade/Tra...
● Property Ownership Management ● Others

Source: IDC Worldwide Semiannual Blockchain Spending Guide 2018H2 (For Internal Use Only)

Based **on 2019 Deloitte's global blockchain survey**, **nearly 1 in 5 companies** are currently using blockchain.

IDC **predicts** blockchain spending in 2019 is forecast to be $2.7 billion, an increase of 80% over 2018. Further, the analyst firm forecasts blockchain solutions will hit **$15.9 billion market in 2023.**

APAC & International Growth

APAC Premier Member Snapshot

HITACHI Inspire the Next

FUJITSU

NEC

APAC General Member Snapshot

Alibaba Cloud · 招商銀行 CHINA MERCHANTS BANK · HUAWEI · LG CNS · SAMSUNG SAMSUNG SDS · Tencent 腾讯

Events

1st Ever Hyperledger Bootcamp in Hong Kong

130+
Participants from 12 Geographies

66%
Technical Participants

58%
Developers & Architects

8%
Tech Decision Makers

19+ session leaders:

Maintainers & Contributors of Hyperledger Caliper, Cello, Fabric, Indy, Iroha, Sawtooth, Ursa

Hosted first-ever meetup with ConsenSys in China

Hyperledger Executive Director, Brian Behlendorf spoke at Innovation Summit ASIA Economist event in Hong Kong

Certification/Training

Alibaba Ant Financial became the 1st HCSP in APAC and the 2nd in the world
Hyperledger announced its 1st training partner in South-East Asia

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Meetups

2 new International Meetups launched: India & Brazil

The India chapter has already ran a National India Meetup over the summer and are planning a second one for November 2019. This is a coordinated regional virtual meeting that ties together local meetup groups around the country to share and learn together.

PR and Media Highlights

24,362
Articles mentioning Hyperledger

BLOCKCHAIN 50 Forbes

30 UNDER 30

[Hyperledger tech powers 50% of the Forbes Blockchain 50](#)

[General member, Elemental Labs, based in India received recognition for its Hyperledger blockchain based product, on Forbes Top 30 under 30 Asia](#)
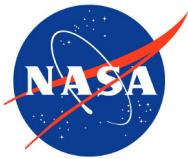
Big Member News

THE WALL STREET JOURNAL.

Forbes

[Salesforce Rolls Out Blockchain Builder for Noncoders](#)

[Software Giants Microsoft and Salesforce Flock To Hyperledger Blockchain Consortium](#)

Powering Cutting Edge Use Cases

[NASA Publishes Proposal for Air Traffic Management Blockchain Based on Hyperledger](#)

[Visa looks to speed up cross-border payments with new network launch](#)

[Volkswagen Group joins responsible sourcing network](#)

[Blockchain startup processes $1 billion in trade finance](#)

[Ford and IBM pilot blockchain platform for minerals supply chains](#)

[Lamborghini Now Uses Salesforce Blockchain to Certify Heritage Cars](#)

[Education orgs, IBM launch blockchain credentials to close skills gap](#)

Hyperledger Projects in the News

HYPERLEDGER GRID

[Hyperledger unveils supply chain blockchain project Grid](#)

HYPERLEDGER FABRIC

[Linux Foundation Readies Hyperledger Fabric for Enterprise-Class Blockchain Apps](#)

HYPERLEDGER INDY

[Google, Hyperledger launch online identity management tools](#)

HYPERLEDGER IROHA

[Blockchain Consortium Hyperledger Releases Hyperledger Iroha 1.0](#)

HYPERLEDGER ARIES

[Hyperledger Announces Aries, a Toolkit for Blockchain-Based Identity Management](#)

HYPERLEDGER TRANSACT

[Hyperledger Transact simplifies distributed ledger development](#)

HYPERLEDGER BESU

[Hyperledger Besu brings public blockchain to enterprise](#)

HYPERLEDGER AVALON

[Improving Blockchain Performance Off-Chain, Hyperledger Announces Avalon](#)

State of the Ledger

In 2019, we continued to see an impressive amount of deployments of Hyperledger technologies across various industries. The majority continued to be early adopters, but that is not to say that large corporations did not take notice. Major production networks are now in place covering use cases ranging from trade finance and KYC to supply chain traceability to self-sovereign identity networks. Our identity project, Hyperledger Indy, graduated to 'production ready' active status, and we have seen an outpouring of digital identity business solutions come to market.

The professionalization of blockchain matured further at Hyperledger through the expansion and growth of professional certification programs. Hyperledger launched the certification program for administrators for Hyperledger Fabric and Sawtooth and kicked off the Hyperledger Certified Service Provider Program. Several new Working Groups and Special Interest Groups were also formed to help foster deeper discussions and collaboration within the community. Hyperledger technologies are now available as managed blockchain-as-a-service offerings across all major cloud providers — offering technologists a variety of options in how they build, scale and manage their blockchain networks. Salesforce and Microsoft became general members of Hyperledger, proving their investment in the technology and commitment to open source.

We also made great strides on interoperability, driven in part by ConsenSys' contribution of Hyperledger Besu, the first blockchain project submitted to Hyperledger that can operate on a public blockchain. Besu represents the growing interest of enterprises to build both permissioned and public network use cases for their applications. The launch of Facebook's Libra also resurfaced many questions around cryptocurrencies and their potential in fixing the current internet payment infrastructure. We see interoperability between Hyperledger projects only growing stronger over the next year and beyond.

In 2020, we will most likely move beyond the early adopters and see many large, credible enterprises setting up networks or joining consortiums in order to keep doing business with their clients. In fact, by the end of this year, Walmart is requiring all of their leafy green vegetables suppliers to be on the Food Trust blockchain network, which is powered by Hyperledger Fabric. Finally, discussions around governance, scaling and managing these networks is far from over, and neither is the conversation about which platform or set of technologies is ideal for a particular use case.