The 2021 Hyperledger Brand Study

Linux Foundation Research
In Partnership With Hyperledger
Methodology & Segmentation
Survey Scope and Screening Criteria

Sample
- Size: 243 (after screening filters)
- Survey fielded: May 2021
- Scope: Worldwide
- Enterprises: Technology consumers, producers, and organizations

Target Respondents
- ITDMs, LoB Leaders, Project Managers, Academia
- Director, VP, or C-Level roles
- Material involvement in technology decision making

Respondents filtered out of analysis
- Where Title (q4), Role (q5), and Industry (q6) = “Other”
- Verbatims associated with these fields primarily showed respondents outside of our target criteria

MoE is +/- 5.2% with 90% confidence and +/- 6.2% with 95% confidence
Demographics at a Glance

**Role**
- 49% IT
- 19% Product Dev
- 16% Go To Market
- 6% Project Management
- 6% Consultants
- 4% Finance

**Title**
- 29% Technician
- 24% C-level
- 19% Management
- 11% Analyst
- 10% Director
- 7% Other

**Company Size**
- 55% 1–100 Employees
- 14% 30K+ Employees
- 12% 1K–10K Employees
- 11% 100–1K Employees
- 6% 10K–30K Employees
- 2% Don't Know

**Geography**
- 29% North America
- 29% Asia Pacific
- 23% Europe
- 13% Latin America
- 6% Middle East/Africa

**Vertical Industries**
- 36% IT
- 14% Fin Services
- 11% Business Services
- 7% Education
- 5% Manufacturing
- 4% Government
- 4% HC/LS
- 19% Other
Demographics
Q2. Counting all locations where your employer operates, what is the total number of persons who work at your company? Your best estimate is fine.

N=243, single response, percent responding

- 55% 0–99
- 14% 30,000+
- 7% 100–499
- 7% 1,000–4,999
- 5% 1,000–20,000
- 5% 5,000–10,000
- 4% 500–999
- 2% Don’t know or not sure
- 1% 20,000–30,000
Region

Q3. In which region do you reside?
N=243, single response, percent responding
Q4. Which of the following best describes your title?
N=243, single response, percent responding

- 29% Technician/engineer
- 19% Manager
- 12% Chief Executive Officer (CEO)
- 11% Analyst
- 10% Director
- 6% Chief Technology Officer (CTO)
- 4% Network architect/administrator
- 4% Other C-level
- 3% Vice President
- 2% Chief Strategy Officer (CSO)
Q5. Which of the following best describes your role?

N=243, single response, percent responding

- 22% IT Development
- 19% Product Development
- 9% IT Operations
- 9% IT Consultant
- 9% Business Development
- 6% IT Management
- 6% Project Management
- 6% Marketing
- 6% Management Consultant
- 4% Finance
- 2% IT Other
- 2% Customer Success
Industry

Q6. What is your organization’s industry?

N=243, single response, percent responding

- 36% Information Technology
- 14% Financial Services (Banking/Insurance/Securities)
- 11% Business Services (accounting, consulting, legal, other)
- 7% Education
- 5% Professional Services
- 4% Manufacturing
- 4% Media (broadcast communications, entertainment, publishing, web, social networking, etc.)
- 4% Telecommunications /ISP/Web Hosting
- 3% Healthcare
- 2% Government (Federal/National)
- 2% Oil & Gas/Energy
- 2% Transportation & Logistics
- 2% Construction/Engineering
- 2% Government (State/Province/County/Municipal or other local government)
- 1% Utilities
- 1% Consumer Packaged Goods
- 1% Life Sciences (biotech, pharmaceuticals, etc.)
**Approach to Computing Infrastructure**

Q7. What is your organization’s approach to providing computing infrastructure? Choose one.

N=243, single response, percent responding

- **42%** Provided through a combination of private data center and cloud computing resources
- **28%** Provided only by one or more cloud service providers or managed service providers
- **15%** Don’t know or not sure
- **14%** Provided only by our private data center(s)
- **1%** Other (please specify)
Approach to Cloud Computing

Q8. How would you describe your enterprise's approach to providing cloud computing infrastructure?

N=243, single response, percent responding

- 27% Our cloud computing infrastructure is provided by one or more cloud service providers
- 21% Our cloud computing infrastructure is provided by one cloud service provider
- 16% Don't know or not sure
- 16% Our cloud computing infrastructure is provided by one or more cloud service provider and managed service providers
- 12% We are not using cloud computing infrastructure
- 4% Our cloud computing infrastructure is provided by one or more managed service providers
- 4% Other (please specify)
Blockchain Questions
Blockchain Familiarity

Q9. How would you describe your familiarity with blockchain technology?
N=236, single response, percent responding

- **28%** Familiar
- **24%** Extremely familiar
- **22%** Some familiarity
- **20%** Very familiar
- **5%** Not familiar at all
- **1%** Don't know or not sure
Q10. How would you describe your familiarity with Hyperledger technologies?

N=236, single response, percent responding

- 26% Some familiarity
- 24% Familiar
- 20% Very familiar
- 17% Not familiar at all
- 12% Extremely familiar
- 1% Don't know / not sure
Blockchain Use Cases

N=236, single response, percent responding

- **41%** A component that can be used to create a distributed database that multiple companies can securely interact with
- **28%** Groups of transactions that reference prior transactions to create an auditable history
- **26%** A cryptographic data structure that can be shared between multiple entities
- **3%** Bitcoin
- **1%** A network that will eventually replace banks
- **1%** Don't know
- **0%** A tool to bypass regulations and avoid law enforcement agencies
Blockchain Adoption

Q12. Which of the following best describes your organization when it comes to business blockchain technologies?

N=220, single response, percent responding

- **33%** Already has implemented, or is currently implementing blockchain technologies
- **22%** Currently evaluating or testing blockchain technologies
- **20%** Have discussed blockchain technologies
- **12%** Blockchain technologies are not currently on our radar screen
- **8%** Don’t know
- **5%** Accepts cryptocurrency as a payment mechanism
If Blockchain Not Being Considered/Used

Q13. If blockchain is NOT yet being considered, how likely is it that your organization will evaluate business blockchain technologies in the next two years?

N=43, single response, percent responding

- 28% Don't know
- 23% Somewhat likely
- 19% Very Likely
- 16% Not very likely
- 12% Not at all likely
- 2% Extremely likely
Scope of Respondent Decision Making with Blockchain

Q14. Which of the following describes the extent to which you are involved in decisions around blockchain within your firm?

N=189, single response, percent responding

- **46%** I have significant influence or decision-making authority (individually or as part of a group) regarding blockchain
- **31%** I have some influence or input into decisions (individually or as part of a group) regarding blockchain
- **14%** I am not involved in blockchain decision making
- **10%** I have little or no influence or input on decisions regarding blockchain

© 2021 The Linux Foundation
Experience in Blockchain Application Development

Q15. Do you or will you have hands-on experience developing applications for blockchain technologies? (E.g. supply chain tracking, asset tracking, cryptocurrency payments)

N=189, single response, percent responding

- 59% Yes
- 29% No
- 12% Don’t know or not sure
Are Blockchain Applications in Development?

Q16. What type of blockchain applications are being developed or might be deployed within your organization?

N=188, single response, percent responding

- 59% Type of application (please specify)
- 42% Don’t know or not sure
Blockchain Applications in Development

Q16. What type of blockchain applications are being developed or might be deployed within your organization?

N=189, multiple response, percent responding
Blockchain Application Categories

Q17. Which of the following best categorize the blockchain application(s) being developed or deployed within your organization? Check all that apply.

N=189, multiple response, percent responding

- 43% Financial Services
- 39% Supply Chain
- 33% Identity
- 26% Education & Research
- 22% Government & Legal
- 20% Healthcare
- 16% Energy & Resources
- 13% Non-profit & Social Impact
- 13% Mobility & Transport
- 12% Media & Entertainment
- 7% Other (please specify)
Words to Describe Blockchain

Q18. What words would you use to describe “business blockchain technology?” There are no right or wrong answers. Simply type in the first words that come to mind when you think about business blockchain technology.

N=159, single response, percent responding
Blockchain Growth

Q19. Where do you see business blockchain technology going over the next 2 years?

N=159, single response, percent responding

- 52% Growing rapidly
- 35% Growing moderately
- 9% Growing slowly
- 3% Contracting rapidly
- 1% No change
- 1% Contracting slowly
- 0% Contracting moderately
Q20. Please identify the first five business blockchain technology projects or brands you can think of. Name up to five brands or projects in the spaces below.

N=159, single response, percent responding
Business Blockchain: Brand Familiarity

Q21. When it comes to business blockchain, how familiar are you with the following brands?

N=159, single response per row, percent responding

<table>
<thead>
<tr>
<th>Brand</th>
<th>Extremely Familiar</th>
<th>Very Familiar</th>
<th>Somewhat Familiar</th>
<th>Only Know the Name</th>
<th>Have Not Heard Of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ConsenSys Quorum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Asset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethereum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedera</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Besu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Burrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Fabric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Indy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Iroha</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Sawtooth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangle / IOTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Q22. Which of the following best describes each brand?

N=159, single response per row, percent responding

<table>
<thead>
<tr>
<th>Brand</th>
<th>Open source consortium</th>
<th>Collaborative project</th>
<th>Blockchain platform</th>
<th>Cryptocurrency</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ConsenSys Quorum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Asset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethereum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedera</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Besu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Burrow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Fabric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Indy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Iroha</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperledger Sawtooth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangle / IOTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Blockchain Brand Perceptions

Q23. What are your perceptions of each of the following brands?
N=142, single response per row, percent responding

- Algorand
- ConsenSys Quorum
- Corda
- Digital Asset
- Ethereum
- Hedera
- Hyperledger
- Hyperledger Besu
- Hyperledger Burrow
- Hyperledger Fabric
- Hyperledger Indy
- Hyperledger Iroha
- Hyperledger Sawtooth
- Tangle / IOTA

Very positive | Somewhat positive | Neutral | Somewhat negative | Very negative
---|---|---|---|---

© 2021 The Linux Foundation
Q24. Name any blockchain technologies or projects (e.g. codebases, frameworks, platforms, tools) that are part of Hyperledger.

N=159, single response, percent responding

- Hyperledger Fabric
- Hyperledger Besu
- Hyperledger Indy
- Hyperledger Aries
- Hyperledger Cello
- Hyperledger Iroha
- Hyperledger Caliper
- Hyperledger Burrow
- Hyperledger Cactus
- Ursa
- Ethereum
- D.C.
- Healthcare
- Corda
- Indy
- Iroha
- Caliper
- Burrow
- Cactus
- Ursa
- Fabric
Hyperledger Attributes

Q26. How effectively do the following statements describe Hyperledger?

N=142, single response per row, percent responding

1. Built by and for enterprises
2. Open source
3. Strong governance model
4. Backed by many leading companies
5. Long track record of success
6. Has well-established use cases
7. Is part of a non-profit foundation
8. Is a brand that I trust
9. Evolves to meet new demands
10. Develops production-ready technologies
11. Provides access to blockchain vendors and partners
12. Enables the development and trading of non-fungible tokens (NFTs)

© 2021 The Linux Foundation
Q27. Which of the following best describes the stage of development your organization is in with regard to blockchain technology?

N=140, single response, percent responding

- 27% Pre-proof of concept
- 25% Production deployment
- 22% Proof of concept
- 10% Don’t know or not sure
- 7% No development intention
- 5% Field trials
- 4% Stalled post-pilot
Future Blockchain Deployment Plans

Q28. If your organization is not yet deploying blockchain technology, how long do you think it will be before it is ready to do so?

N=140, single response, percent responding

- 26% N/A
- 18% Within 6 months
- 14% Within 12 to 18 months
- 12% More than 18 months from now
- 11% Don’t know or not sure
- 10% Within 9 to 12 months
- 9% Within 6 to 9 months
- 0% Never
Most Likely Technologies to be Leveraged

Q29. Which of these technologies are most likely to be considered, evaluated, or implemented within your organization? Check all that apply.

N=140, multiple response, percent responding

- Hyperledger Fabric: 58%
- Ethereum: 53%
- Hyperledger: 45%
- Corda: 21%
- Hyperledger Indy: 21%
- Digital Asset: 19%
- Don't know or not sure: 18%
- ConsenSys Quorum: 14%
- Hyperledger Besu: 14%
- Hyperledger Sawtooth: 11%
- Algorand: 8%
- Tangle / IOTA: 6%
- Hedera: 5%
- Hyperledger Burrow: 4%
- Hyperledger Iroha: 3%

© 2021 The Linux Foundation
Hyperledger Tools Most Likely to be Implemented

Q30. Which Hyperledger tools are most likely to be considered, evaluated, or implemented? Check all that apply.

N=140, multiple response, percent responding

- 54% Don’t know or not sure
- 30% Hyperledger Explorer
- 21% Hyperledger Caliper
- 15% Hyperledger Cactus
- 11% Hyperledger Cello
- 7% Hyperledger Avalon
- 7% None of the above
Appealing Blockchain Attributes

Q31. Imagine a hypothetical business blockchain technology was brought to market that included the following features. To what extent, if at all, do you find these features “appealing”? 

N=140, single response per row, percent responding

- Built by and for enterprises
- Open source
- Strong governance model
- Backed by many leading companies
- Made up of multiple projects
- Long track record of success
- Ready to use in production today
- Provides access to blockchain vendors and partners
- Enables the development and trading of non-fungible tokens (NFTs)

© 2021 The Linux Foundation
Q32. What do you see as the main benefits of business blockchain technologies? Check up to 5.

N=139, multiple response, percent responding

- **72%** Decentralized databases to increase accountability, even in instances where the individual actors may not be trusted
- **68%** Creating a single source of truth among multiple participants/elimination of reconciliation
- **60%** Auditability—creation of an append-only audit trail
- **55%** Ability to share data with a greater degree of security
- **52%** Quality assurance with traceability of goods or transactions
- **42%** Software standards to keep everyone in the shared ecosystem in sync with transparent, verifiable ledger entries
- **40%** Reducing operating costs
- **28%** Overall efficiency
- **19%** Creating new revenue sources
- **1%** Don’t know or not sure
- **1%** Other (please specify)
Challenges of Business Blockchain

Q33. What do you see as the most significant challenges to the adoption of business blockchain technology?
Check up to five that apply.
N=139, multiple response, percent responding

- 58% Lack of technology maturity
- 50% Too difficult to adopt and connect to legacy systems
- 49% Difficult to explain to senior management
- 48% Regulatory risks (e.g., unsure where government will come out)
- 34% Costly migration
- 32% Absence of regulation
- 24% Limited governing body
- 19% Concentration of power
- 17% Security risks, hacking
- 14% Competitive concerns (e.g., lack of privacy)
- 10% Lack of control
- 10% No accountability
- 6% Other (please specify)
Level of Agreement with Blockchain Characteristics

Q34. Please indicate the extent to which you agree or disagree with the following statements:

N=139, single response per row, percent responding

- Lack of technology maturity
- Too difficult to adopt and connect to legacy systems
- Difficult to explain to senior management
- Regulatory risks (e.g. unsure where government will come out)
- Costly migration
- Absence of regulation
- Limited governing body
- Concentration of power
- Security risks, hacking
- Competitive concerns (e.g. lack of privacy)
- Lack of control
- No accountability
- Other (please specify)

There is little differentiation across different blockchain technologies today
Blockchain will become a core technology of the future
Blockchain will enable new business models to emerge
There is confusion between business blockchains and cryptocurrencies
Blockchain technology is bad for the environment
I'd rather contribute to/implement a platform with tokens
Business blockchains are just as secure as permissionless blockchains

© 2021 The Linux Foundation
Interest in Participating in an Open Source Blockchain Project

Q35. How interested would you be in participating in an open source project that develops business blockchain technologies?

N=139, single response, percent responding

- 46% Extremely interested
- 28% Very interested
- 19% Somewhat interested
- 5% Not very interested
- 2% Already participating
- 0% Not at all interested

© 2021 The Linux Foundation
Benefits of Participation

Q36. If at least somewhat interested or already participating, what do you see as the benefits of participating in an open source organization? Check all that apply.

N=138 multiple response, percent responding

- 73% Keeps me up to date with leading technologies and trends
- 66% Gaining skills
- 64% Builds my professional network
- 45% Builds my company’s partnership network
- 39% Participation helps my organization
- 38% Improving my job prospects
- 26% Externalizes my company’s use case
- 26% Facilitates upstreaming our changes to the project
- 20% Recruiting developers is easier
- 20% Safeguards my company’s blockchain technology investment
- 5% Other (please specify)
Should Hyperledger Change its Name?

Q37. Should Hyperledger change its name to Hyperledger Foundation?
N=138 single response, percent responding

- 45% Yes
- 25% No
- 30% Not sure