



HFS Top 10 Enterprise Blockchain Services 2020

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TOP 10
HFS

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“2019 witnessed pioneering blockchain initiatives succeed and proceed from proofs of concept to pilots to “live, in-production,” while several other efforts failed to move beyond laboratories. 2020 promises to be the most exciting blockchain year—we could see enterprise blockchain adoption come of age to solve real-world business problems.”

—*Saurabh Gupta, Chief Strategy Officer*

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Introduction

- Blockchain is emerging as a powerful architectural technology with the potential to impact enterprise and B2B ecosystems as much as the internet and cloud.
- The HFS Top 10 Enterprise Blockchain Services 2020 report investigates the blockchain space to provide a comprehensive and foundational analysis of the blockchain services market for enterprises.
- From an enterprise or B2B adoption perspective, HFS assessed 13 leading blockchain service providers based on detailed discussions with their leadership teams, inputs from their enterprise clients, and analysis of nearly 4,200 blockchain engagements across industries and around the globe.

Research methodology

HFS assessed 13 leading blockchain service providers based on detailed discussions with their leadership teams, inputs from their enterprise clients, and analysis of nearly 4,200 blockchain engagements across industries and around the globe. The research is also augmented with information from publicly available information sources.

Blockchain service providers were assessed on the following three main dimensions:



33.3%

Voice of the customer

- Clients in live production environment
- Brand recall for blockchain
- Client feedback (across reference and non-reference clients)



33.3%

Ability to execute

- Scale and growth (number of dedicated and blockchain proficient resources, YOY growth in number of engagements)
- Experience (number of engagements, practice start date)
- Value chain coverage (advisory, prototype, pilot, and in-production engagements)



33.3%

Innovation

- Vision and strategy
- Intellectual property (patents, tools, solutions accelerators)
- Ecosystem (experience with blockchain platforms, partnerships, consortium memberships)
- Investments (capability building, global delivery investments)

Blockchain service providers covered in this report



Executive summary

- **We are hurtling toward a hyperconnected economy, and blockchain will provide the way to make it happen.** Ecosystems across organizations that service the specific needs of a customer are emerging. No single organization owns the entire customer experience, and competitors and peers need to figure out how to collaborate. Blockchain in combination with other emerging technologies like IoT and artificial intelligence will provide the way to make it happen.
- **The blockchain “six-pack” is driving unprecedented interest from enterprises.** There are six built-in blockchain features with long-term potential for disruption when enterprises leverage them intelligently in relevant business use cases. The blockchain six-pack includes: 1. Distributed shared data over peer-to-peer (P2P) networks reduces single points of failure; 2. Consensus-driven trust cuts out the middle-man; 3. Immutable transactions ensure trust; 4. Hashing-based data ensures integrity and security; 5. Automated smart contracts promote touchless interactions across process chains; and 6. Permissioned and permissionless flavors give enterprise users flexibility. These six blockchain features are changing the way we think about business transactions, data storage, and even industry value chains and associated revenue models.
- **Enterprise blockchain service market witnessed a massive surge in 2019.** The number of engagements and dedicated talent pool for blockchain services nearly doubled in 2019. Despite a continuing POC fatigue, over 15% of blockchain solutions are reaching production stage, nearly a 3X increase from 2018. This is encouraging even though almost all “live engagements” represent “shadow” or “parallel” environments where the legacy solutions has not yet been replaced.
- **Enterprise blockchain adoption is a cross-industry global phenomenon.** Banking and financial services was the first mover from an enterprise blockchain adoption perspective accounting for 35%+ engagements. However, other industries are catching up fast.
- **Supply chain has emerged as the hottest use case for blockchain** followed by document management, trade management, payments, identity, and customer experience. Industry-specific use cases include insurance claims processing, re-insurance, intercompany reconciliations, settlements, lending, and several others have also emerged.

Executive summary (2)

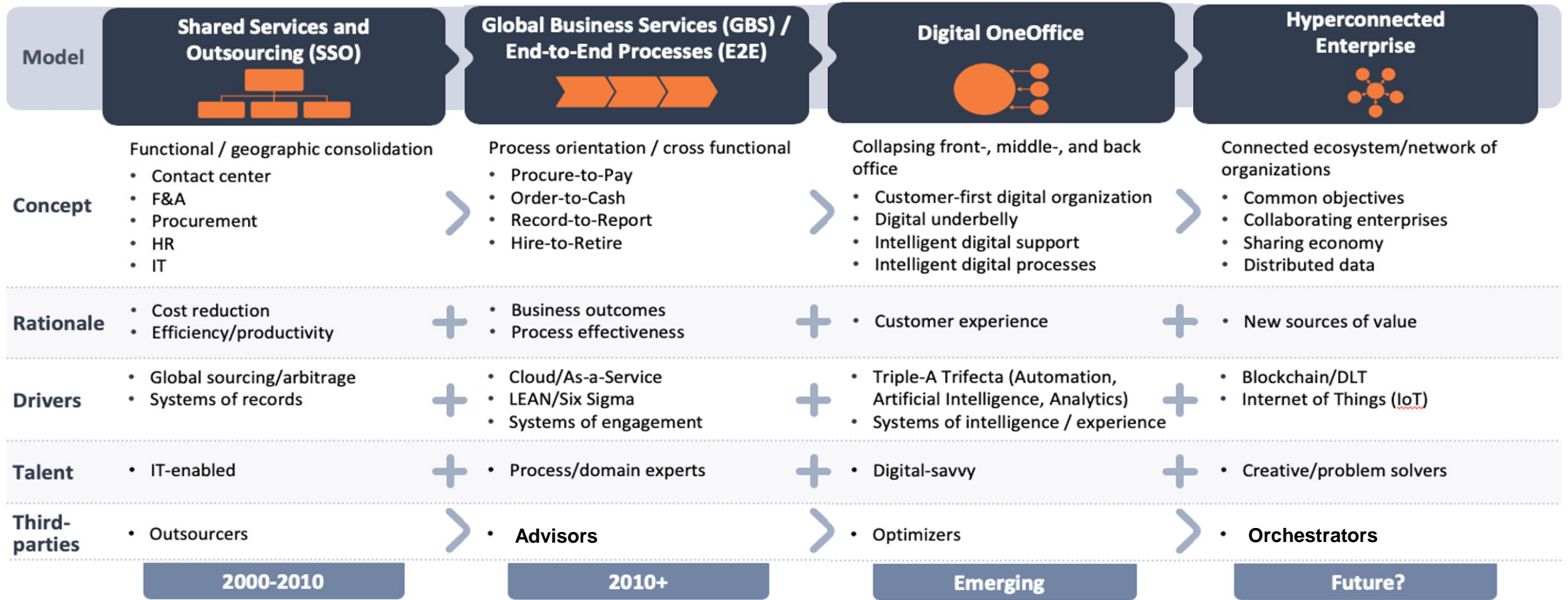
- **The blockchain platform choice for enterprises is emerging as a two-horse race.** Hyperledger Fabric and Ethereum (incl. Quorum) account for over 60% of enterprise blockchain engagements. However, the debate between permissioned (Hyperledger Fabric, and championed by IBM) and permissionless (Ethereum, and championed by EY) continues to rage on. All other service providers assessed in the report are playing it safe with a technology-agnostic approach.
- **Several service providers are doing commendable work to invest, experiment, and develop enterprise blockchain solutions.** HFS assessed 13 leading blockchain service providers based on detailed discussions with their leadership teams, inputs from their enterprise clients, and analysis of 4,000+ blockchain engagements across industries and across the globe. The HFS Top 10 enterprise blockchain service providers for 2019 are (in rank order): 1. IBM, 2. Accenture, 3. EY, 4. Deloitte, 5. TCS, 6. Wipro, 7. Infosys, 8. Cognizant, 9. NTT DATA, and 10. KPMG.
- **Real blockchain clients want real business impact.** Blockchain promises “creative destruction” through disintermediation, but that is a long-term vision. Only 6% of executives we surveyed are leveraging blockchain to remove the need for intermediaries. Enterprise blockchain clients are investing in blockchain solutions to get real business impact. Without a tangible ROI, blockchain engagements get stuck at the proof of concept (PoC) or pilot stage. No-nonsense, real business cases are a must-have to drive blockchain beyond the PoC-fatigue that we are witnessing today. Consequently, the current focus for enterprise adoption is business optimization with a tangible ROI.
- **Enterprise blockchain is going through a 60-30-10 adoption challenge.** Around 60% of enterprises are still unclear about blockchain, highlighting the nascence of the concept. Nearly 30% of enterprises are struggling with how to get started, and the remaining few with successful proofs of concept or pilots are struggling to get to production. A balanced approach to blockchain is critical to driving meaningful success—you can no longer ignore blockchain as a value creation lever, but don’t also get sucked into all the hype!
- **Enterprise clients will still demand blockchain solutions despite COVID-19.** HFS ran a survey to understand the impact of the coronavirus on the business/IT services industries, with over 600 respondents. The results showed that enterprise clients predicted a small increase in their blockchain investments following the pandemic, meaning that it must remain a strategic investment for service providers despite current uncertainty.

We are hurtling toward a hyperconnected economy, and blockchain is paving the way to make it happen

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Converging organizational silos

Emergence of ecosystems



The Blockchain “six-pack” is driving unprecedented interest from enterprises

TOP 10
HFS

Distributed shared data over peer-to-peer (P2P) network reduces single points of failure

Consensus-driven trust cuts out the middleman

Immutable transactions ensure trust

Security driven by hashing-based data

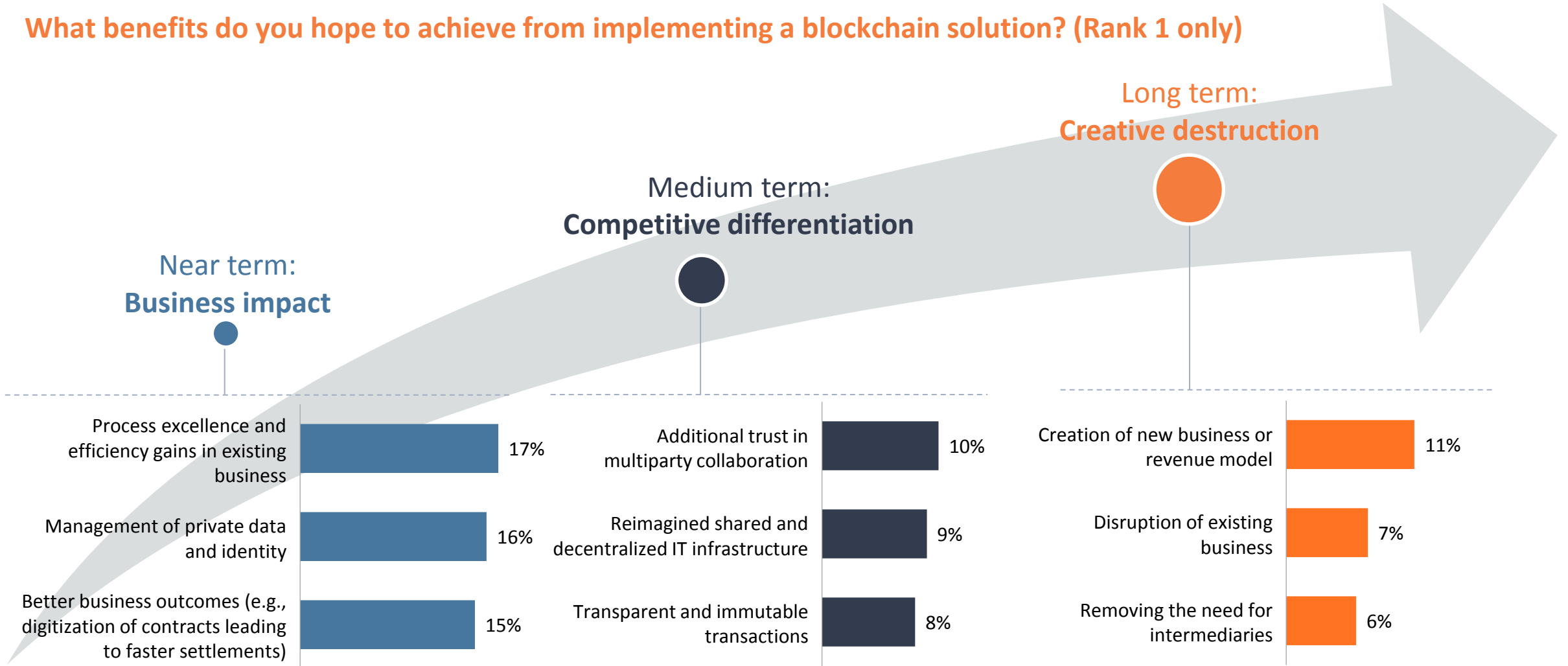
Smart contracts promote touchless interactions across process chains

Permissioned and permissionless flavors give enterprise users flexibility

Refer to [“The Blockchain Reality Check: Where Are We and What Can We Expect in 2018?”](#) for more details on the blockchain “six-pack”

Real blockchain clients want real business impact

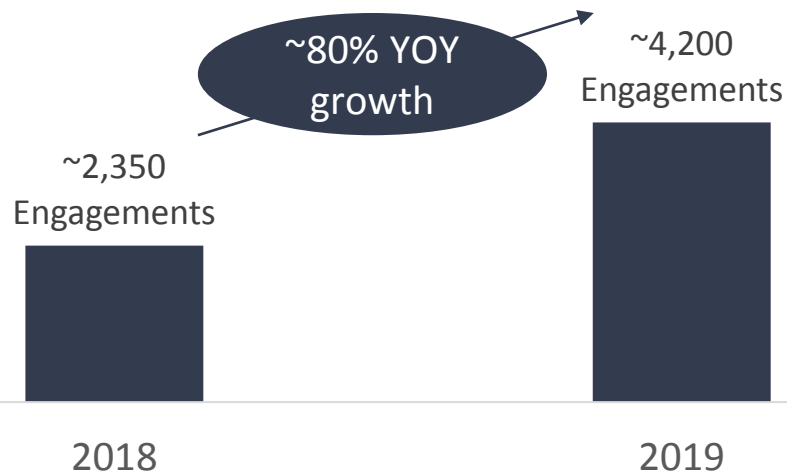
What benefits do you hope to achieve from implementing a blockchain solution? (Rank 1 only)



Enterprise blockchain service market witnessed a massive surge in 2019. Number of engagements and dedicated talent pool for blockchain services nearly doubled.

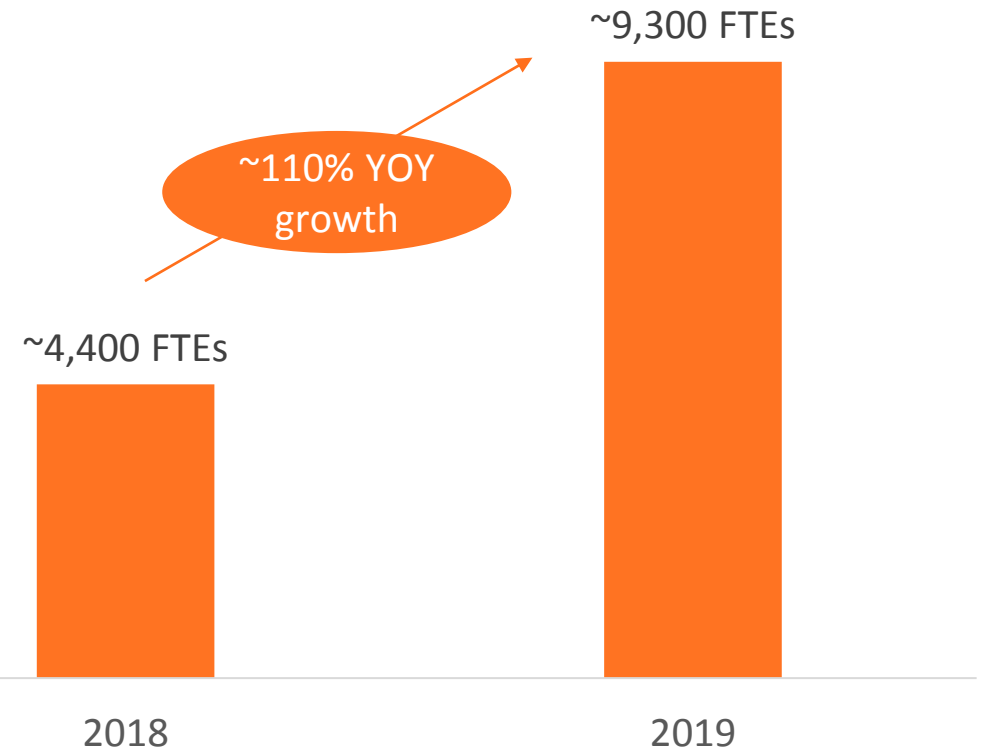
Growth of enterprise blockchain engagements

Number of blockchain engagements



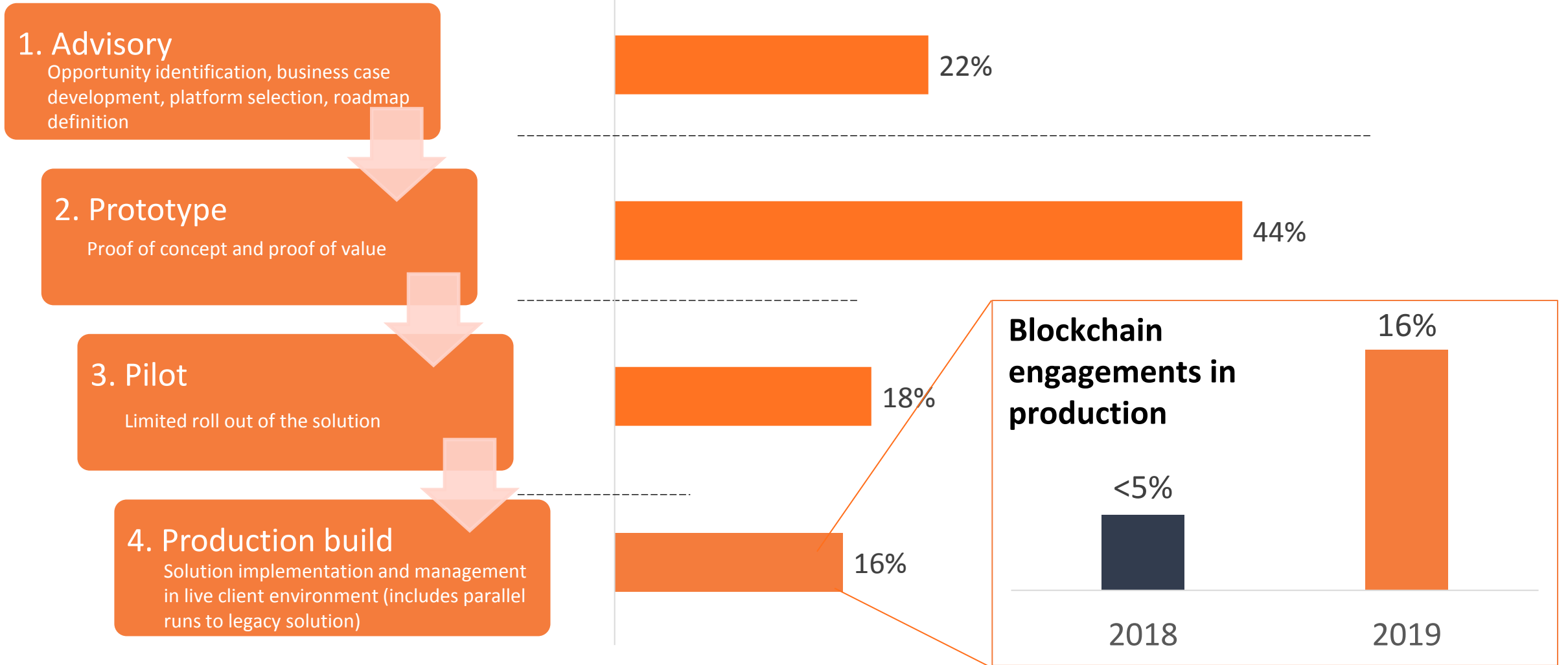
Growth of blockchain talent

Number of FTEs dedicated to the blockchain practice (does not include all blockchain proficient resources)



Sample: Based on information provided by 12 service providers (Accenture, Cognizant, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro)

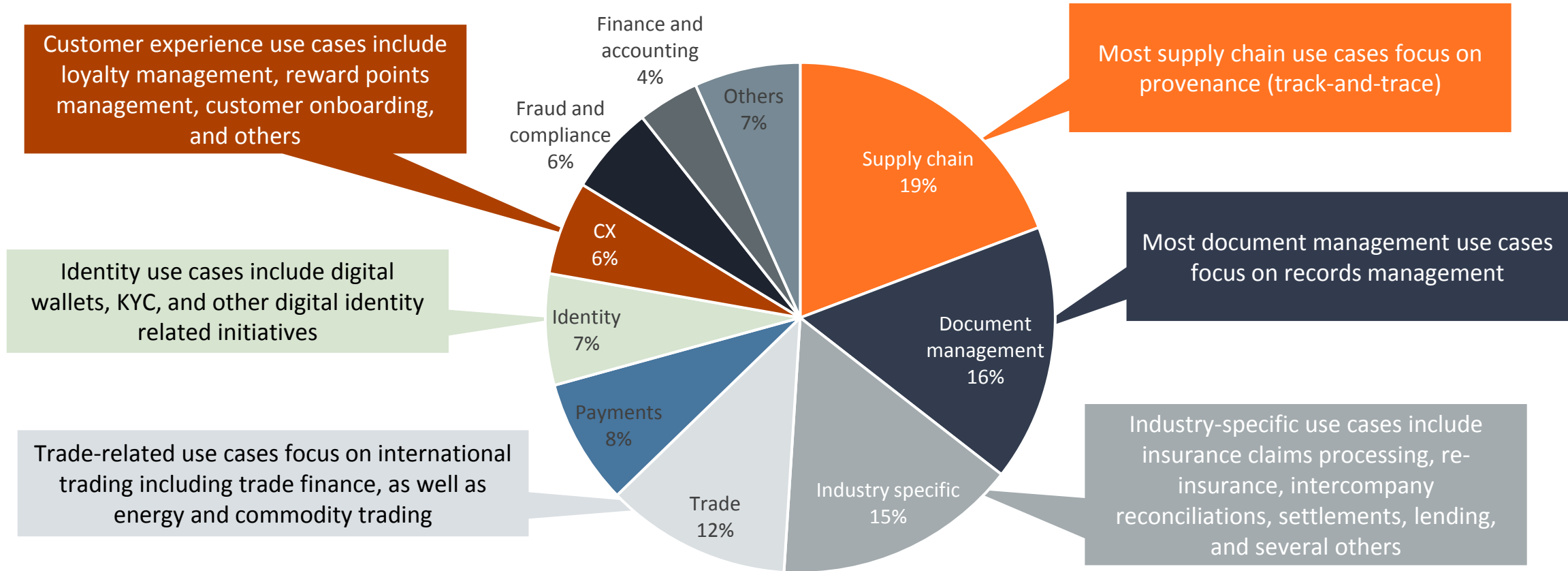
Despite a continuing POC fatigue, in 2019 there was a significant increase in credible “in-production” enterprise blockchain solutions



Sample: 4,200 blockchain engagements across 12 service providers (Accenture, Cognizant, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro)

Supply chain has emerged as the hottest use case for blockchain followed by document management, industry-specific use cases, trade management, payments, identity, and customer experience

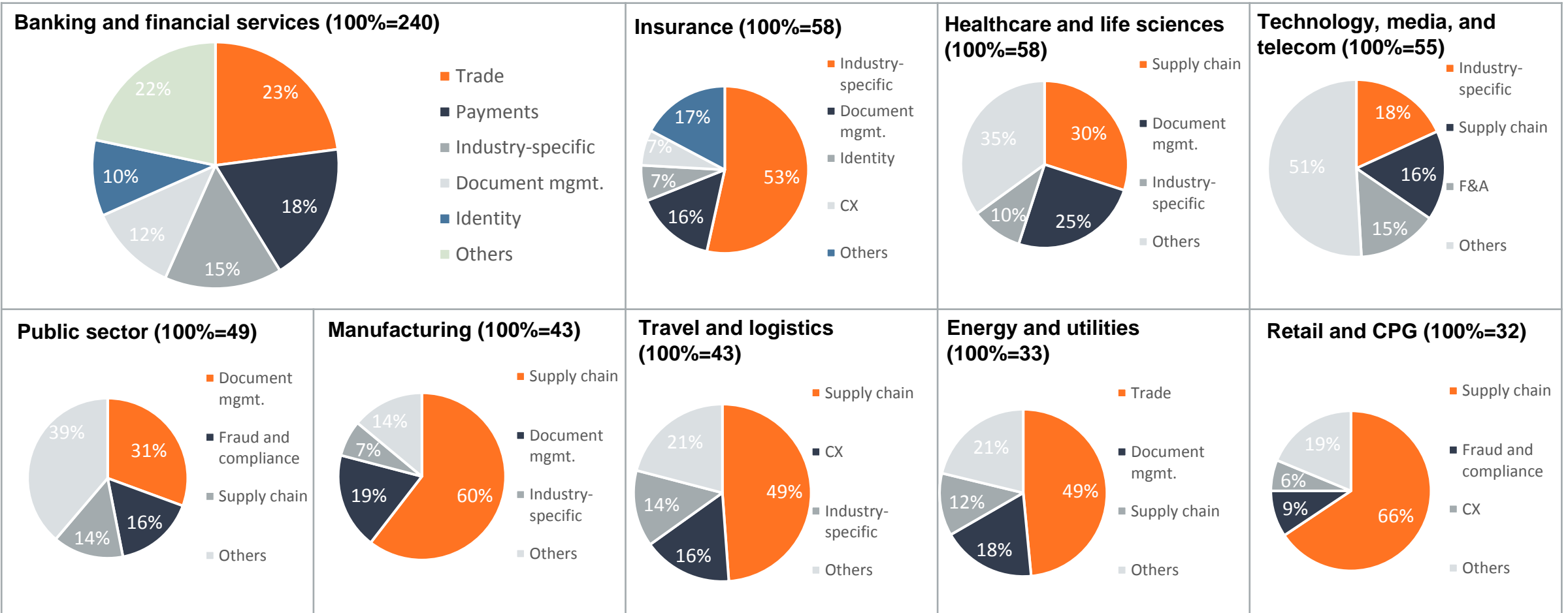
Popular use cases for enterprise blockchain adoption
Number of blockchain engagements



Sample: ~640 blockchain engagements across 12 service providers (Accenture, Cognizant, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro)

Enterprise blockchain use cases vary significantly by industry

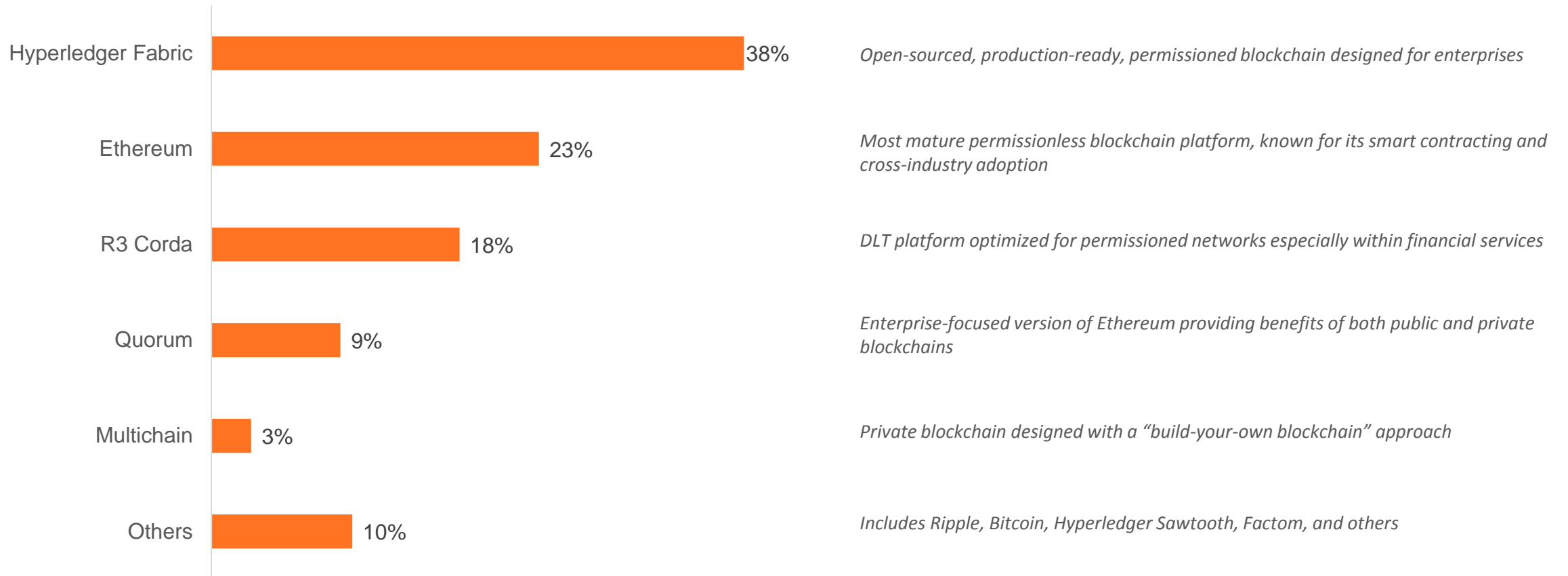
Major enterprise blockchain use cases by industry
Number of blockchain engagements



Sample: ~640 blockchain engagements across 12 service providers (Accenture, Cognizant, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro)

The blockchain platform choice for enterprises is emerging as a two-horse race (Hyperledger Fabric vs. Ethereum)

Major enterprise blockchain platforms Number of blockchain engagements



Sample: ~425 blockchain engagements across 12 service providers (Accenture, Cognizant, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro)

Enterprise blockchain is going through a 60-30-10 adoption challenge

What is your single biggest challenge in adopting blockchain?



HFS' Top 10 recommendations to drive meaningful success from blockchain

TOP 10

1

Investigate blockchain today, and avoid the "oh crap" moment down the line.

74%

of respondents agree that blockchain will become mainstream in the next five years.

2

Beware the blockchain hype.

45%

of respondents agree that blockchain is hyped, compared to 27% who disagree.

3

Blockchain is not the answer to everything.

Only 50%

of blockchain projects reported made business sense and created meaningful value for the respondents.

4

Keep blockchain investments real.

High

correlation coefficient between blockchain project satisfaction and compelling business case and stakeholder alignment.

5

Blockchain alone will not solve business problems. Integrated solutions will.

90%+

of blockchain projects are weaving in other emerging technologies, especially IoT and machine learning.

6

Blockchain initiatives will not succeed with just a technology focus.

<45%

of respondents are investing in blockchain talent, consortium building, or IP creation, while most are focusing on technical solutions.

7

Create a business buy-in for the blockchain initiative to succeed.

Only 7%

of business unit heads are allocating budget for blockchain initiatives.

8

Blockchain requires competitors to come together.

54%

of blockchain initiatives require competitive organizations to be a part of the ecosystem to be successful.

9

Do not try and do everything on your own.

70%

of organizations with blockchain initiatives are partnering with external service providers that they can trust.

10

Keep an eye on future technology advancements.

45%

of respondents perceive that quantum computing might kill blockchain. Over a third don't have a perspective!

HFS Top 10 enterprise blockchain service providers, 2020













Summary of blockchain enterprise service providers assessed in the report

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Service providers (alphabetic order)	HFS Point of View
Accenture	Comprehensive blockchain business and technology consulting and execution services at scale
Cognizant	Full-service blockchain capability enabled by broad platform experience, robust ecosystem, and deep client relationships
Deloitte	Global, holistic, platform-agnostic, and business-centric blockchain services
DXC	Building market momentum on the back of Luxoft acquisition
EY	Bold public blockchain market vision and software development-led go-to-market strategy
IBM	The flag bearer of enterprise blockchain with a leading number of live blockchain networks
Infosys	Scaled up blockchain talent with experience of establishing live blockchain networks in BFS
KPMG	Multi-dimensional technology-agnostic blockchain approach backed by strong business relationships and public sector experience
LTI	Start-up approach to problem solving with cross-industry technical expertise
Mphasis	Technical blockchain capabilities combined with BFSI domain expertise
NTT DATA	Full-stack blockchain technical capabilities backed by strong global consortium experience
TCS	Bold vision for blockchain to create purposeful ecosystems.
Wipro	Holistic blockchain technology solution with an industry-focused go-to-market

Notable performances in the HFS Top 10 blockchain enterprise service providers

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HFS Podium Winners								
Top three providers overall across execution, innovation, and voice of the customer criteria								
#1.			#2.			#3.		
								
Execution powerhouses			Innovation champions			Outstanding Voice of the Customer		
Top three providers on execution criteria			Top three providers on innovation criteria			Top three providers on voice of the customer criteria		
#1	#2	#3	#1	#2	#3	#1	#2	#3
								
Other notable top three performances								
<ul style="list-style-type: none"> TCS emerged as a blockchain visionary, ranking #1 in vision and strategy 								

Notes: *The HFS Top 10 Blockchain Service Providers report* assessed and ranked 13 service providers across execution, innovation, and voice of the customer criteria. The inputs to this process included detailed RFI responses and structured briefings with service provider leadership as well as interviews and surveys from their clients. In order to drive objectivity to our research methodology, we interacted with reference clients provided by the service providers as well as non-reference Blockchain clients sourced through our own network for each service provider assessed. The service providers assessed in this report include (in alphabetic order) Accenture, Cognizant, Deloitte, DXC, EY, IBM, Infosys, KPMG, LTI, Mphasis, NTT DATA, TCS, and Wipro.

HFS Top 10 blockchain enterprise service provider rankings

Rank	Overall HFS Top 10 position	Execution			Overall Execution	Innovation				Overall Innovation	Voice of the customer
		Scale and growth	Experience	Value chain coverage		Vision and Strategy	Intellectual property	Ecosystem	Investments		
#1											
#2											
#3											
#4											
#5											
#6											
#7											
#8											
#9											
#10											

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Enterprise blockchain service provider profiles



The flag bearer of enterprise blockchain with a leading number of live blockchain networks



Dimension	Rank	Strengths	Development opportunities																			
HFS Top 10 position	#1	<ul style="list-style-type: none"> Experience in launching production-ready business networks and active consortia (including Trade Lens, Food Trust, Health Utility Network, we.trade, and Trust Your Supplier) differentiates IBM from the rest of the providers covered in this report. IBM believes that blockchain is a team sport. IBM has emerged as an open and inclusive partner, working along with several other blockchain firms and ecosystem start-ups. Given the consortium experience, IBM is well positioned to take on the challenge of industry consensus, which remains one of the biggest hurdles in blockchain adoption. Largest contributor to the Hyperledger Fabric, the leading permissioned network for enterprise blockchain. The synergy between IBM and Hyperledger has made IBM Blockchain Platform an open, interoperable, multi-cloud and industrial strength blockchain platform. And with the latest release of the IBM Blockchain Platform, customers can now pay as they go and grow or pay for what they consume. The RedHat acquisition provides IBM clients a wide choice of hybrid cloud solutions and open source innovation. Global general contractor. IBM is already seeing many of its delivery efforts cross industry opportunities to work across networks, geographies, and complementary industries as the global general contractor of blockchain capability (e.g., US FDA, Walmart, and Merck) Intellectual property. IBM inventors received a record 9,262 patents in 2019, marking the company's 27th consecutive year of US patent leadership. Overall, nearly half of the 2019 patents relate to pioneering advancements in AI, cloud computing, security, blockchain and quantum computing. Full spectrum of blockchain capability across strategy and design, business and industry processes, technology (all aspects: infrastructure, cloud native, blockchain protocol, smart contracts and chain code, UI and UX, interfaces, data, enterprise integration with ERP and GL systems), integration services, business process services, IoT, automation, AI, advanced analytics, and research. Consortium launch methodology, which provides a framework for governance and key commercial decisions, symbolizes IBM's expertise in scaling blockchain to production-grade implementations. 	<ul style="list-style-type: none"> Multi-platform strategy with focus on Hyperledger. IBM has experience across multiple blockchain platforms and has delivered some of its largest clients with other platform technology such as Ethereum and Axoni, but the market narrative is often too closely tied with Hyperledger. Pressure of being the market leader. IBM's early success means it is under enhanced public scrutiny, especially in a market where clients are still very cautious. However, clients will also be quick to praise the firm in the event of success, and IBM must leverage this to cement its position as a market leader. Client navigation challenges. Client feedback suggests that navigating the firm's delivery arm can be challenging. Clients also expect other parts of the large IBM organization to offer solutions and services that are tightly integrated with blockchain. IBM cannot afford to rest on its laurels and needs maniacal focus on ongoing innovation as the blockchain landscape is changing very fast. Opportunities suggested by clients include new pricing models, alignment with open-source blockchain philosophy, and industry-specific solutions. 																			
Ability to execute																						
Scale and growth	#1																					
Experience	#1																					
Value chain coverage	#1																					
Innovation capability																						
Vision and strategy	#2	<table border="1"> <thead> <tr> <th>Blockchain engagement portfolio</th> <th>Delivery capabilities</th> <th>Ecosystem</th> <th>Investments</th> </tr> </thead> <tbody> <tr> <td>1,000+ engagements across all phases of implementation and geographies.</td> <td>IBM founded its blockchain practice in 2015 and is now present across all major geographies partnering with industry teams.</td> <td>Partnerships: IBM's partners include KPMG, Maersk, Deloitte, Health Utility Network, MineHub, Lygon and the Responsible Sourcing Blockchain Network (RSBN)</td> <td>Acquisitions: IBM's acquisition of RedHat (2019) is being leveraged in its blockchain practice.</td> </tr> <tr> <td>Market share (based on % engagements across all providers covered in this report): 23%</td> <td>Dedicated blockchain headcount: 2,000+</td> <td>Consortium memberships: IBM has founded and is a member of consortiums including TradeLens, Food Trust, Health Utility Network, we.trade, and Trust Your Supplier</td> <td>Platforms and tools: IBM's platforms include IBM Blockchain Platform, IBM Blockchain Document Store, IBM Food Trust, and IBM Blockchain World Wire</td> </tr> <tr> <td>Key clients: Aetna, Anthem, Health Care Service Corporation (HCSC), PNC Bank, Ford Motor Company, Huayou Cobalt, LG Chem, RCS Global, Grooveearth, Minehub, Merck, Walmart, Golden State Foods, Alberten's, Carrefour, TradeLens - IBM and Maersk collaboration, AAIS, Syniverse, Dole, Driscoll's, Kroger, McCormick and Company, McLane Company, Nestlé, Tyson Foods, Unilever, CaixaBank, Deutsche Bank, Erste Group, HSBC, KBC, Natixis, Nordea, Rabobank, Santander, Société Générale, UBS, UniCredit, ANZ Bank, Westpac, Scentre, The Commonwealth Bank, and National Australia Bank</td> <td>Blockchain proficient headcount: 100,000 blockchain education badges</td> <td>Delivery locations: IBM has established garages and innovations worldwide, including San Francisco, London, Toronto, Tokyo, Singapore, Bangalore, Nice, New York, Austin, Melbourne, and Brazil.</td> <td>Solution accelerators: IBM's accelerators include Trusted Identity, Identify Mixer, Blockchain Data, Validity Tool, Provenance Engine, Certificate Managers, Blockchain Security Testing, Crypto Anchors, Member Management and Onboarding, Deduplication Engine, and End-to-End Testing.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Patents: IBM received 9,262 patents in 2019.</td> </tr> </tbody> </table>	Blockchain engagement portfolio	Delivery capabilities	Ecosystem	Investments	1,000+ engagements across all phases of implementation and geographies.	IBM founded its blockchain practice in 2015 and is now present across all major geographies partnering with industry teams.	Partnerships: IBM's partners include KPMG, Maersk, Deloitte, Health Utility Network, MineHub, Lygon and the Responsible Sourcing Blockchain Network (RSBN)	Acquisitions: IBM's acquisition of RedHat (2019) is being leveraged in its blockchain practice.	Market share (based on % engagements across all providers covered in this report): 23%	Dedicated blockchain headcount: 2,000+	Consortium memberships: IBM has founded and is a member of consortiums including TradeLens, Food Trust, Health Utility Network, we.trade, and Trust Your Supplier	Platforms and tools: IBM's platforms include IBM Blockchain Platform, IBM Blockchain Document Store, IBM Food Trust, and IBM Blockchain World Wire	Key clients: Aetna, Anthem, Health Care Service Corporation (HCSC), PNC Bank, Ford Motor Company, Huayou Cobalt, LG Chem, RCS Global, Grooveearth, Minehub, Merck, Walmart, Golden State Foods, Alberten's, Carrefour, TradeLens - IBM and Maersk collaboration, AAIS, Syniverse, Dole, Driscoll's, Kroger, McCormick and Company, McLane Company, Nestlé, Tyson Foods, Unilever, CaixaBank, Deutsche Bank, Erste Group, HSBC, KBC, Natixis, Nordea, Rabobank, Santander, Société Générale, UBS, UniCredit, ANZ Bank, Westpac, Scentre, The Commonwealth Bank, and National Australia Bank	Blockchain proficient headcount: 100,000 blockchain education badges	Delivery locations: IBM has established garages and innovations worldwide, including San Francisco, London, Toronto, Tokyo, Singapore, Bangalore, Nice, New York, Austin, Melbourne, and Brazil.	Solution accelerators: IBM's accelerators include Trusted Identity, Identify Mixer, Blockchain Data, Validity Tool, Provenance Engine, Certificate Managers, Blockchain Security Testing, Crypto Anchors, Member Management and Onboarding, Deduplication Engine, and End-to-End Testing.				Patents: IBM received 9,262 patents in 2019.
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Ecosystem	#2																					
Investments	#1																					
Voice of the customer	#1																					



Dimension	Rank	Strengths	Development opportunities	
HFS Top 10 position	#2	<ul style="list-style-type: none"> Blockchain vision that goes beyond technology. Accenture looks at blockchain as a trigger for business transformation that could change the way we work and live. Ability to develop and deliver integrated blockchain services and solutions, leveraging its capabilities across all four of its services: Accenture Strategy and Consulting, Accenture Interactive, Accenture Technology, and Accenture Operations. Technology independence. Accenture can bring the right combination of capabilities to each client’s unique challenges. It has developed deep expertise in the available blockchain technologies, as well as an understanding of its clients’ unique business requirements. It matches the best technology to the use case, with no vendor lock-in. Accenture brings the depth and breadth of hands-on experience across the major blockchain platforms. Ecosystem reach and relationships. Accenture is building and enabling consortiums that convene key stakeholders and create value for all parties across the blockchain ecosystem, including enterprises across industries, major tech players, platform vendors, start-ups, consortia, regulators, governments and academic institutions. Innovation at scale. 166 blockchain-specific patents (including pending patents), 30+ studios for rapid prototyping, three R&D labs active in blockchain, and 10+ delivery centers. Digital Identity solutions. Its global blockchain and Digital Identity teams deliver end-to-end identity services for clients with 30M+ digital identities managed, and it plays a key role in some of the industry’s major identity initiatives such as WEF’s digital ID initiative and World Bank’s Identification for Development (ID4D) program 	<ul style="list-style-type: none"> Premium priced. Accenture wins because it can demonstrate value, but it continues to be premium priced when compared to its peers. This can steer clients (especially smaller clients) who are focused on lowering costs towards other system integrators. Held to a higher standard. Clients expect more from Accenture than most of its peers. When people are buying the premium services, they expect them to be delivered! Accenture cannot afford to rest on its laurels and needs maniacal focus on ongoing innovation as the blockchain landscape is changing very fast. 	
Ability to execute				
Scale and growth	#3			
Experience	#2			
Value chain coverage	#2			
Innovation capability		Blockchain engagement portfolio	Delivery capabilities	
Vision and strategy	#4	<p>515 engagements</p> <p>Market share (based on % engagements across all providers covered in this report): 12%</p> <p>Key clients: Cathay Pacific, Tonys Chocolonely, ReiseBank, TMX Group, Siam Commercial, Zurich Insurance, Tel Aviv Stock Exchange, Riskstream, The Institutes RiskStream Collaborative, DTCC</p>	<p>Accenture’s blockchain practice was founded in 2016 and is one of four emerging technologies the firm has identified as a strategic priority.</p> <p>Dedicated blockchain headcount: 2,500</p> <p>Blockchain proficient headcount: 10,000+</p> <p>Delivery locations: Accenture leverages its entire delivery network, but it has several dedicated blockchain locations in Bratislava, Slovakia, Dublin, Sophia Antipolis, Bangalore, Beijing, Tokyo, Singapore, San Jose, New York, and Washington, DC.</p>	Ecosystem
Intellectual property	#2	Partnerships: Accenture’s partners include Avanade, AWS, Digital Asset, Finastra, Everledger, Google, HPE, IBM, Intel, Oracle, Ripple, TadelX, R3 and VMWare.	Investments	
Ecosystem	#1	Consortium memberships: Accenture has founded and participates in many consortiums, including Chamber of Digital Commerce, Enterprise Ethereum Alliance, Global Blockchain Business Council, Hyperledger, ID2020 and MOBI.	Platforms and tools: Accenture has a long list of platforms and tools, including DLT Diagnostics, Blockchain for Contracts, True Supplier Marketplace, Circular Supply Chain, Redaction Capability and privacy enabling technologies like Multiparty Computation, Homomorphic Encryption, Secure Enclaves and Federated Learning.	
Investments	#2		Solution accelerators: Accenture has several accelerators, including the Blockchain Automation Framework, Blockchain Integration Framework and HSM Interface.	
Voice of the customer	#4		Patents: Accenture has a total of 166 patents; 35 are issued patents, and 131 are pending applications.	



Bold public blockchain market vision and software development-led go-to-market strategy



Dimension	Rank	Strengths	Development opportunities		
HFS Top 10 position	#3	<ul style="list-style-type: none"> Public blockchain vision. EY believes that blockchains will do for networks of companies what ERP did for the single enterprise. Consequently, it has prioritized the development of solutions that can create value for enterprises and work on public networks, where they can achieve the best network effects. Deep integration of business process designs with audit, tax, and compliance requirements. Between EY OpsChain and EY Blockchain Analyzer, EY solutions include the capabilities that enterprises need to transact securely, safely, and in full regulatory compliance on either private or public blockchains. Common technology and architecture. While most firms covered in this report work across multiple blockchain technologies or announced a huge diversity of partnerships, EY has focused on tight integration across its services on Ethereum with two deep partnerships (Microsoft and SAP). Singular global team structure differentiates EY from other consulting-led firms covered in this report. EY has one clear global leader for blockchain, along with a global cross-service line supporting team. Intellectual property investments in line with commitment to make public blockchains a reality; 14 patents filed relating to zero-knowledge proofs and other privacy protocols for public blockchains, reduced ZKP transaction costs by 90%, launched Blockchain.EY.com and blockchain Baseline protocol to expedite enterprise adoption of public blockchain. 	<ul style="list-style-type: none"> Exclusive focus on Ethereum. EY's focus and commitment to public blockchains is both commendable and differentiated, but it does come at an opportunity cost to service clients that are looking for private and permissioned blockchains. Scale of blockchain developers at EY will never be able to match the offshore-led system integrators covered in this report. There are potential partnership approaches that EY should evaluate, especially as the market matures. Market perception. The market continues to perceive EY as an advisory or consulting firm and does not recognize EY's hands-on technical capability to get blockchain solutions in production. EY will need to invest in changing this market perception as it builds on its software development-focused strategy. 		
Ability to execute					
Scale and growth	#10				
Experience	#5				
Value chain coverage	#7				
Innovation capability		Blockchain engagement portfolio	Delivery capabilities	Ecosystem	Investments
Vision and strategy	#3	<p>250+ engagements (excl. tax and assurance related blockchain engagements)</p>	<p>EY's blockchain practice was founded in June, 2016, and has been set up with one global leader alongside global cross-service line supporting teams.</p> <p>Dedicated blockchain headcount: 200+</p> <p>Blockchain proficient headcount: 500+</p> <p>Delivery locations: EY's blockchain division is split across <i>research sites</i> (London, Paris, Tel Aviv), <i>development centers</i> (Trivandrum, San Jose, Madrid, Cambridge US), and <i>client-facing locations</i> (London, Paris, Munich, Rome, Manila, Tel Aviv, Singapore, Tokyo, Shanghai, Seoul, Seattle, San Francisco, New York, Toronto).</p>	<p>Partnerships: EY's most important partnerships are with Microsoft and SAP.</p> <p>EY is also an active sponsor and participant the Enterprise Ethereum Alliance and is a member of Global Blockchain Business Council.</p>	<p>Platforms and tools: EY has two main platforms: EY OpsChain (which has eight applications built) and EY Blockchain Analyzer (with three applications built).</p> <p>Solution accelerators: EY's 14 patents represent tools for emerging technologies which have reduced zero-knowledge proof transaction costs by 90%, allowing clients to manage complex contracts on a public blockchain under zero knowledge, the firm boasts its blockchain-as-a-service offering.</p> <p>Patents: EY has filed 14 patents, which include privacy protocols for public blockchains, tokenization, testing of smart contracts, and tokens and identity verifications.</p>
Intellectual property	#3	<p>Market share (based on % engagements across all providers covered in this report): 6%</p> <p>Key clients: Microsoft Corporation, NACHA, BNP Paribas, Allianz, Carrefour, European Investment Bank, Block2, MakerDAO, Maersk and Guardtime, Spinosa, Bofrost, WiV, City of Vienna, Roosevelt China Investments, H-source, Merck Animal Health, Canadian Blood Services, WIV Technology, City of Toronto, Spinosa, Infogold, The Institute of RiskBlock Alliance</p>			
Ecosystem	#7				
Investments	#3				
Voice of the customer	#5				



Dimension	Rank	Strengths	Development opportunities							
HFS Top 10 position	#4	<ul style="list-style-type: none"> • Globally nuanced perspective. Deloitte has invested in multiple global labs and dedicated hubs to support and service each region (Americas, EMEA, and APAC) to bring a nuanced global perspective to the market. • Cross functional offering. Deloitte’s blockchain offerings go beyond business advisory and technical implementations. It also offers blockchain-specific tax, risk, regulatory, cyber-security, and audit services. • Holistic blockchain offering across blockchain strategy, consortium strategy, platform design, blockchain architecture, use case and implementation, and managed blockchain services. • Platform-agnostic technical expertise. Deloitte has credible experience across most blockchain platforms backed by supporting structures (e.g., technology integration, sandboxes, tech ecosystems) and industry specific assets. • Client relationships and industry experience. Deloitte has trusted senior relationships with clients and deep industry expertise across most sectors that allows it to have a strategic seat at the table to provide insights into how blockchain will impact its clients. • Influence with regulators. Deloitte is actively advising regulators, and its influence and insights are proving to be extremely valuable in the nascent blockchain market where standards and regulations are non-existent. 	<ul style="list-style-type: none"> • Integrated go-to-market across blockchain, AI, IoT, and other emerging change agents. While Deloitte has strong capabilities across multiple emerging technologies including blockchain, a truly integrated engagement model for clients is still evolving. 							
Ability to execute										
Scale and growth	#4									
Experience	#3									
Value chain coverage	#4									
Innovation capability										
Vision and strategy	#6	<table border="1"> <thead> <tr> <th>Blockchain engagement portfolio</th> <th>Delivery capabilities</th> <th>Ecosystem</th> <th>Investments</th> </tr> </thead> <tbody> <tr> <td>Market share*: (based on % engagements across all providers covered in this report): 10%</td> <td>Deloitte’s blockchain practice was founded in 2016 and now has in excess of 400 engagements across a range of industries. Dedicated blockchain headcount: 1,400 Blockchain proficient headcount: 1,500+ Delivery locations: Deloitte has three blockchain labs in Dublin, Hong Kong, and New York, as well as 32 country-specific blockchain hubs.</td> <td>Partnerships: Deloitte’s partnerships include Riddle & Code, Thales, BitFury, Seal, Digital Asset, Oracle, SAP, Microsoft, as well as various academic partners such as UT Austin, MIT, and Singularity University.</td> <td>Acquisitions: Practical Smarts (2019). Platforms and tools: <i>not disclosed</i>. Solution accelerators: Deloitte’s solution accelerators include Hyperledger-Corda Interoperability Bridge, Traceability, Bancassurance, Trade Finance, Track & Trace, EduScript, Contract Lifecycle Management, KYC, IoT for Digital Twins.</td> </tr> </tbody> </table>	Blockchain engagement portfolio	Delivery capabilities	Ecosystem	Investments	Market share*: (based on % engagements across all providers covered in this report): 10%	Deloitte’s blockchain practice was founded in 2016 and now has in excess of 400 engagements across a range of industries. Dedicated blockchain headcount: 1,400 Blockchain proficient headcount: 1,500+ Delivery locations: Deloitte has three blockchain labs in Dublin, Hong Kong, and New York, as well as 32 country-specific blockchain hubs.	Partnerships: Deloitte’s partnerships include Riddle & Code, Thales, BitFury, Seal, Digital Asset, Oracle, SAP, Microsoft, as well as various academic partners such as UT Austin, MIT, and Singularity University.	Acquisitions: Practical Smarts (2019). Platforms and tools: <i>not disclosed</i> . Solution accelerators: Deloitte’s solution accelerators include Hyperledger-Corda Interoperability Bridge, Traceability, Bancassurance, Trade Finance, Track & Trace, EduScript, Contract Lifecycle Management, KYC, IoT for Digital Twins.
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Intellectual property	#6									
Ecosystem	#3									
Investments	#4									
Voice of the customer	#6									

*HFS estimates based on our own research

Dimension	Rank	Strengths	Development opportunities
HFS Top 10 position	#5		
Ability to execute			
Scale and growth	#2		
Experience	#6		
Value chain coverage	#3		

Blockchain engagement portfolio	Delivery capabilities	Ecosystem	Investments
<p>400+ engagements</p> <p>Market share (based on % engagements across all providers covered in this report): 10%</p> <p>Key clients: Travelport, Canadian Depository for Securities (CDS), South Africa-based Standard Bank, Maroclear, the CSD of Morocco, Kuwait Clearing Company, the CSD of Kuwait, ABN Amro, BNP Paribas</p>	<p>TCS' blockchain efforts began in 2014 with a financial services focus, which has since expanded across all industries. It set up a dedicated blockchain business unit in 2017.</p> <p>Dedicated blockchain headcount: 2,000+</p> <p>Blockchain proficient headcount: 10,000+</p> <p>Delivery locations: TCS follows a Global network delivery model and therefore does not have single delivery locations.</p>	<p>Partnerships: TCS has <i>technology partners</i> (R3 Corda, Microsoft, Hyperledger, Ethereum and Quorum), <i>knowledge partners</i> such as the Blockchain Research Institute, and <i>co-innovation partners</i> including academic institutes like Yale and Massachusetts Institute of Technology (MIT), and various start-ups and incubators.</p> <p>Consortium memberships: Blockchain Research Institute.</p>	<p>Platforms and tools: TCS focuses on 5 platform solutions; Digital Identity, Track and Trace, Asset Monetization, Assets in Common and Tokenization. Tools include Quartz DevKit, Quartz Gateway, Blockchain CICD framework, Opportunity Feasible Matrix, Analysis Framework & Methodology TORC, Idea Decomposition Tool and Ecosystem Value Design Tool-Set.</p> <p>Solution accelerators: TCS' solution accelerators include Blockchain Workbench, Contract Management, Digital Identity, Insurance Broking, Food Recall, and Procure to Pay.</p> <p>Patents: TCS has applied for three patents focusing on coexistence, interoperability, and blockchain application development.</p>



Holistic blockchain technology solution with an industry-focused go-to-market

TOP 10
HFS

Dimension	Rank	Strengths	Development opportunities							
HFS Top 10 position	#6	<ul style="list-style-type: none"> Scaled-up technical expertise with 4,600+ blockchain proficient headcount augmented by a crowdsourced delivery model (enabled by Topcoder) with experience across 375+ client engagements; 25 patents across industries and domains. Industry-oriented approach that focused on 10 industry themes that generate business value. Wipro has created 40+ industry solutions, assets, and frameworks, and three industry platforms (Digital Assets platform, Decentralized Trading platform, and Supply Chain platform). Rapid prototyping enablement leveraging Blockchain Innovation Labs and Digital Pods in 17+ cities across the globe. Its Blockchain Lab-as-a-Service enables auto-provision of configurable blockchain network in cloud environments for different blockchain platforms. Blockchain App Fabric, a Platform-as-a-Service offering that allows to work with multiple blockchain platforms and facilitates quick provisioning of network and underlying infrastructure and accelerates development lifecycle. This comprises of pre-built integrated and validated stacks of best-of-breed open-source products to quickly assemble different types off-chain components required for an enterprise-grade blockchain based solution. Holistic technology solution that combines blockchain technical prowess with design capabilities (leveraging DesignIT), other emerging technologies (AI, big data, IOT, digital, business platforms like Connected Car platform, Wipro HOLMES), Open Source advisory services, and Cyber Risk and Security Services. 	<ul style="list-style-type: none"> Consortia orchestration and governance. Wipro's go-to-market for blockchain focuses primarily on technology, even though blockchain-based transformation requires strong collaboration across enterprises to create a network effect. Strategic advisory. Clients appreciate Wipro's technical prowess, but they expect more support beyond technology (e.g., building blockchain business case). 							
Ability to execute										
Scale and growth	#5									
Experience	#7									
Value chain coverage	#6									
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Vision and strategy	#8									
Intellectual property	#5									
Ecosystem	#4									
Investments	#5									
Voice of the customer	#2									

Dimension	Rank	Strengths	Development opportunities		
HFS Top 10 position	#7	<ul style="list-style-type: none"> Low experimentation barrier for clients using Infosys' pre-built blockchain accelerators and integrating with other emerging technologies. Clients can leverage Infosys hubs to facilitate rapid experimentation through demos, workshops, co-development, etc. Infosys' technology-agnostic approach and capabilities across a wide-range of blockchain platforms also enable clients to experiment with blockchain. Experience of establishing live blockchain networks such as cross-border remittances (Middle East), trade finance (Middle East, Southeast Asia, ANZ), and a government and tax agency network brings clients confidence for Infosys to scale up blockchain initiatives. Infosys has also invested in building a state-of-the-art education practice and tools to develop blockchain awareness and educate and advise clients to drive market adoption. Investments in building the blockchain talent model. Sourcing talent for technologies like blockchain is one of the biggest challenges, but Infosys reports a blockchain proficient headcount of 4,500+ trained employees ready to aid projects. Alongside this, the firm is investing heavily in its own Blockchain Academy and offers training and certifications to its own employees on its learning platform, Lex, to increase its own talent pool. Infosys' localization strategy has deepened delivery capability across the globe through their innovation hubs across Americas, Europe and APAC. 	<ul style="list-style-type: none"> Europe expansion. Infosys has a strong portfolio of blockchain clients in US, the Middle East, and Southeast Asia. There is strong growth opportunity in Europe—a growing location for blockchain demand. Replicating success outside BFS. Despite a strong roster of in-production clients in BFS, Infosys needs to continue to push in-production use cases in other sectors like retail and telecom. Strategic advisory. Clients appreciate Infosys' technical prowess, but they would like to see more support beyond technology (e.g., building blockchain business cases). 		
Ability to execute					
Scale and growth	#6				
Experience	#4				
Value chain coverage	#5				
Innovation capability		<p>Blockchain engagement portfolio</p> <p>~570 engagements</p> <p>Market share (based on % engagements across all providers covered in this report): 13%</p> <p>Key clients: ICICI Bank, ENBD, a leading government services agency in India, a global food and agribusiness company, a large global retailer, a cards and payments bank, a top north American depository and custodian, one of the world's largest retail banks, a large American multinational Telecom conglomerate and an American coffee company and coffee house chain</p>	<p>Delivery capabilities</p> <p>Infosys founded its dedicated horizontal blockchain practice in 2017 following researching the technology in its research labs from 2015.</p> <p>Dedicated blockchain headcount: 795+</p> <p>Blockchain proficient headcount: 4,500+</p> <p>Delivery locations: Infosys has delivery locations in India (Bangalore, Chandigarh, Pune), the US (Indianapolis, Hartford), Europe (London).</p>	<p>Ecosystem</p> <p>Partnerships: Infosys partnerships are broken into <i>infrastructure partners</i> (Microsoft, Oracle, AWS, SAP, HP and IBM), <i>platform partners</i> (R3 Corda, Hyperledger, Ethereum, Multichain and Quorum) and <i>academic partners</i> (Royal Melbourne Institute of Technology).</p> <p>Consortium memberships: Infosys is a participant in PhUSE, BiTA, Linux Foundation, SAE, ORB, and MOBI.</p>	<p>Investments</p> <p>Acquisitions: In its blockchain practice, the acquisitions of Brilliant Basics (2017) and WongDoody (2018) are both leveraged.</p> <p>Platforms and tools: Infosys has a selection of its own platforms, including Infosys Blockchain Platform, Infosys Digital Trust Platform, Infosys Intelligent Applications Platform, Infosys Blockchain Assessment Framework, Infosys Blockchain Testing Framework, and Infosys Analytics Framework.</p> <p>Solution accelerators: Infosys accelerators include Finacle Trade Connect, Finacle Identity Connect, Infosys Governance Distributed Application, Infosys Supply Chain Distributed Application, and Infosys Insurance Distributed Application.</p>
Vision and strategy	#7				
Intellectual property	#7				
Ecosystem	#9				
Investments	#8				
Voice of the customer	#3				

Full-stack blockchain technical capabilities backed by strong global consortium experience

Dimension	Rank	Strengths	Development opportunities							
HFS Top 10 position	#8	<ul style="list-style-type: none"> Global COE network with blockchain expertise across 24 countries spanning North America, South America, Europe, Asia, and Australia. Global working group shares and analyzes blockchain application cases across its group companies. Strong consortium experience as a co-founder of Hyperledger, LACchain (to promote blockchain in Latin America), INATBA (International Association of Trusted Blockchain Applications) backed by the European commission, Alastria (multi-sector consortium of 200 companies), Blockchain Federal Argentina, and Ethereum Enterprise Alliance. Robust repository of blockchain assets and solutions including BlockTrace (supply chain traceability), TradeWaltz, KayTrust (digital identity management), StampChain (notarization), Smart Grids, EtherWallet, CriptoChip, iOCash, EverConnector (interoperability solution) and Hyperledger Quilt. Accelerators include a multi-framework approach, shared cloud platforms, blockchain DevOps, and node and peer management. 	<ul style="list-style-type: none"> Scale of blockchain talent. Despite having a global presence, NTT Data should look to expand its blockchain proficient talent pool to close the gap between itself and many other SIs covered in this report, who have built a much bigger scale of blockchain proficient talent. Strategic marketing. Despite NTT DATA's strong capabilities and experience, overall awareness of its blockchain capabilities are low (especially in some geographies). The firm should work hard to push client stories into the public domain to cement its position as a credible blockchain delivery partner. Strategic business advisory. NTT DATA represents a one-stop-shop for all blockchain-related technical requirements, but there is an opportunity to further expand its scale and presence for strategic consulting. 							
Ability to execute										
Scale and growth	#11									
Experience	#8									
Value chain coverage	#8									
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Vision and strategy	#10									
Intellectual property	#9									
Ecosystem	#6									
Investments	#7									
Voice of the customer	#8									

Dimension	Rank	Strengths	Development opportunities							
HFS Top 10 position	#9	<ul style="list-style-type: none"> Hands-on experience across 24+ blockchain frameworks enables Cognizant to offer an unbiased expert opinion on use case and platform selection. Cognizant brings to the table the ability to build complete technology solutions using complementary technologies, where needed, to enable appropriate, optimal usage of blockchain-based infrastructure. Consortium growth catalyst. Deep client relationships, especially in healthcare, banking, and insurance, allows Cognizant deep understanding of how blockchain can fit into the clients' broader strategy and IT architecture. It provides Cognizant an ability to be a "match-maker" and blockchain consortium growth catalyst. Ecosystem. Cognizant's technology-agnostic, partnership-driven approach with multiple technology providers allows it to capture the best of breed innovation in the market and leverage its expertise to integrate blockchain into enterprise architecture, and develop the required tooling to productionize solutions in a quick span of time. Full-service capability and decades of enterprise IT experience to not just develop, but also run and operate blockchain solutions in infrastructure hosted and managed by Cognizant or in neutral third-party infrastructures. It provides pre-built blockchain solution accelerators and full-stack digital capabilities to develop blockchain applications for its clients. 	<ul style="list-style-type: none"> Expanding outside the US represents an opportunity for Cognizant's blockchain practice. 70% of its current blockchain engagements are in the US. Publicly known clients. Despite strong blockchain credentials and experience, Cognizant has few publicly disclosed blockchain clients. Business advisory. Strong technology consulting credentials but could invest more in building broader management consulting capabilities especially given blockchain discussions encompass business transformation. 							
Ability to execute										
Scale and growth	#7									
Experience	#10									
Value chain coverage	#10									
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Vision and strategy	#9									
Intellectual property	#10									
Ecosystem	#5									
Investments	#11									
Voice of the customer	#11									



Multi-dimensional, technology-agnostic blockchain approach backed by strong business relationships and public sector experience



Dimension	Rank	Strengths	Development opportunities		
HFS Top 10 position	#10	<ul style="list-style-type: none"> Technology-agnostic approach: KPMG has proven it has a willingness to work with a broad range of existing and emerging technologies alongside blockchain, which allows it to partner with a variety of providers and offer customers a tech stack that fits requirements, whether they are for augmenting an existing platform or building a proprietary product. Multi-dimensional team that goes beyond technology expertise. KPMG brings to the table deep strategy, industry, governance, business process, technology, regulatory, cryptocurrency and change management experience to align and implement blockchain solutions. Differentiated crypto-asset services that bring together KPMG's technology, risk, analytics, regulatory, and financial services expertise in order to define reliable business frameworks for corporations to manage crypto-assets. KPMG is working with major crypto players such as Coinbase, as well as regulators in Malta. Public sector experience. KPMG has the ability to translate private sector experience and learnings to the public sector. Leveraging the power of "AND." Within KPMG's I&ES (Innovation & Enterprise Solutions) practice, KPMG Blockchain Services sits alongside other emerging tech services (such as AI and IoT) and KPMG's Audit, Tax, and Consulting practices. Strong client relationships. In navigating cross-organizational alliances and partnerships, as it relates to consortiums and participants, KPMG offers a versatile network of contacts with strong business relationships. 	<ul style="list-style-type: none"> Geographic focus. KPMG has made strong inroads into the US and APAC, but revenues in Europe are somewhat restrained. As a result, KPMG has a strong growth opportunity when focused on EMEA—a growing location for blockchain demand. Scale of blockchain developers at KPMG will never be able to match the offshore-led system integrators covered in this report. There are potential partnership approaches that KPMG should evaluate especially as the market matures. 		
Ability to execute					
Scale and growth	#9				
Experience	#12				
Value chain coverage	#12				
Innovation capability		Blockchain engagement portfolio <p>90+ engagements</p> <p>Market share (based on % engagements across all providers covered in this report): 2%</p> <p>Key clients: LabChain, Merck, Canegrowers Australia</p>	Delivery capabilities <p>KPMG's blockchain practice was founded in 2016 as Distributed Ledger Services (DLS) and has since been rebranded as KPMG Blockchain Services.</p> <p>Dedicated blockchain headcount: not disclosed.</p> <p>Blockchain proficient headcount: not disclosed.</p> <p>Delivery locations: KPMG advises that it has practitioners around the globe, with technical development largely in India due to a majority of its engagements being in the US and APAC.</p>	Ecosystem <p>Partnerships: KPMG has blockchain alliance offerings with Microsoft, IBM, and Guardtime, and broader alliances including blockchain with Salesforce and AWS. Other notable technology provider relationships include Ounum.</p> <p>Consortium memberships: KPMG is a member of the Chamber of Digital Commerce, Trusted IoT Alliance, and Blockchain in Transportation Alliance.</p>	Investments <p>Acquisitions: KPMG leverages its acquisitions of Cyberinc (2018), Bookly (2018), and Ferrier Hodgson (2019) in its blockchain practice.</p> <p>Solution accelerators: KPMG has an extensive range of accelerators including Tokenization/Digital Wallets, Fixed Assets, Grant Management, Pharmaceutical Secure Supply Chain, Data Supply Chain, Supply chain with Customs and Trade, Duty Drawbacks, Crypto Wallet Explorer, Automated Transaction Analytics, KPMG Origins, Tokenized Loyalty, Funds DLT, and Mortgage Originations.</p>
Vision and strategy	#5				
Intellectual property	#8				
Ecosystem	#10				
Investments	#10				
Voice of the customer	#9				



Dimension	Rank	Strengths	Development opportunities							
HFS Top 10 position	#11	<ul style="list-style-type: none"> • Industry-agnostic reusable blockchain modules have allowed LTI to help its clients from the inception phase through to the production stage. It has developed DLT specific guidelines for quality assurance and performance tuning in the project development cycle, ensuring seamless deployment of code packages. • Startup approach to problem solving provides LTI with the agility and flexibility to explore and work on different platforms. Its specially curated sandbox environment lets clients test their ideas in remarkably less time, and its frameworks assist them with a go/no-go decision and help them explore and test other use cases. • Strong alliances within the blockchain ecosystem with the likes of Microsoft, R3, IBM, SAP, Oracle, and several start-ups across industries allow LTI to deliver impactful solutions to its clients. LTI is one of the eight global Research Patrons for MIT CISR, and it has forged partnerships with several premier academic institutions for leveraging their deep industry knowledge and for sourcing the best local talent. • Cross-industry technical experience across BFS, manufacturing, oil and gas, insurance, and media and entertainment to create reusable modules. 	<ul style="list-style-type: none"> • Market awareness (especially outside India): Despite strong capabilities and experience, LTI's brand recall for its blockchain capabilities in the US and Europe is limited. LTI will need to invest in a strong and aggressive marketing and story-telling campaign. • Scaling up blockchain practice (especially consulting): Though LTI has a broad end-to-end vision for blockchain services, the overall practices need more investment in scaling up. There is a distinct opportunity to further expand its scale and presence for strategic business consulting. 							
Ability to execute										
Scale and growth	#12									
Experience	#9									
Value chain coverage	#11									
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Vision and strategy	#11									
Intellectual property	#11									
Ecosystem	#11									
Investments	#12									
Voice of the customer	#10									

Dimension	Rank	Strengths	Development opportunities
HFS Top 10 position	#12	<ul style="list-style-type: none"> Luxoft acquisition provides momentum to DXC’s blockchain practice. Luxoft brings deep technical blockchain expertise and DXC provides a large install base of clients where the technology capability can be delivered at scale. Clear focus on identity, Platform DXC and Bionix. As blockchain clients expect real scalable solutions, DXC’s approach is to focus on embedding blockchain within existing DXC platforms and solutions and drive focus on identity (along with IoT), a core strength of Luxoft. Business consulting blend: DXC has extended its business consulting capabilities and combined them with expertise from its Digital Transformation Centers. This allows DXC to integrate blockchain into its clients’ digital transformation roadmaps. 	<ul style="list-style-type: none"> Market awareness. Despite DXC’s investments (including the Luxoft acquisition), overall awareness of its blockchain capabilities is low. The firm should work hard to push client stories into the public domain to cement its position as a credible blockchain delivery partner. Consistent narrative. DXC has always found it challenging to build a consistent narrative across business units since the merger of HP and CSC, and with the recent changeover of CEO and the subsequent discussion of divesting core business areas, clients are understandably uncertain about the future of the broader business and distinct business units. Scaling talent: DXC has a relatively smaller pool of blockchain-proficient FTEs compared to other system integrators covered in this report. It will need to scale up its talent based to solidify its blockchain market positioning.
Ability to execute			
Scale and growth	#8		
Experience	#11		
Value chain coverage	#9		

Innovation capability		Blockchain engagement portfolio	Delivery capabilities	Ecosystem	Investments
Vision and strategy	#12	<p>150+ engagements</p> <p>Market share (based on % engagements across all providers covered in this report): 4%</p> <p>Key clients: Not disclosed</p>	<p>DXC’s blockchain practice was founded in 2018 and is distributed across its organization, but it is principally found in consulting and industry-specific offerings.</p> <p>Dedicated blockchain headcount: not disclosed.</p> <p>Blockchain proficient headcount: 300</p> <p>Delivery locations: DXC has global capability with primary locations in North America and the UK.</p>	<p>Partnerships: DXC’s partnership list includes Microsoft, IBM, AWS, PWC, eMudhra, Bloxian, Australian Stock Exchange, R3/Corda, BiTA, and IOTA</p> <p>Consortium memberships: DXC is a member of the Retail Blockchain Consortium, Crypto valley consortium, Blockchain in Transport Alliance, and UCL Centre for Blockchain Technology</p>	<p>Acquisitions: DXC leverages its acquisition of Luxoft (2019) in its blockchain practice.</p>
Intellectual property	#12				
Ecosystem	#13				
Investments	#6				
Voice of the customer	#12				

Dimension	Rank	Strengths	Development opportunities										
HFS Top 10 position	#13	<ul style="list-style-type: none"> • BFSI focus with strong expertise on payments via blockchain. Mphasis has deep expertise across BFSI through its products, services, and existing client relationships. • Technical blockchain knowledge combined with strong digital capability to integrate blockchain solutions other emerging technologies on blockchain such as web, mobile, security, analytics, and ML. • Investments in blockchain accelerators and reusable components such as Blockchain Composer, ZK Composer, Ethereum Composer, DeployContracts, and BlockchainExplorer. Allows client to build and review blockchain POCs at its innovation lab (Sparkle). • Platform agnostic. Experience of working across Hyperledger Fabric, Ethereum, Quorum, and multichain allows Mphasis to remain unbiased and flexible to client needs. 	<ul style="list-style-type: none"> • Scaling up blockchain practice: Mphasis’ blockchain practice is in an early stage of evolution and will need significant investments in scaling up. • Relative investments. Despite inherent technology heritage, Mphasis has not had the market visibility or traction in blockchain, given relatively small in-house investments thus far. • Converting POCs and pilots to production environments. While this is an overall market challenge, most of the suppliers covered in this report have had success in building production grade blockchain solutions. 										
Ability to execute													
Scale and growth	#13												
Experience	#13												
Value chain coverage	#13												
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Category	Percentage												
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Vision and strategy	#13												
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Investments	#13												
Voice of the customer	#13	<p>Ecosystem</p> <p>Partnerships: Mphasis’ partner list includes R3 Corda, Bitfury, Loyakk, and Multichain.</p> <p>Consortium memberships: None.</p>	<p>Investments</p> <p>Acquisitions: None.</p> <p>Platforms and tools: Mphasis’ blockchain-specific tools includes Blockchain Composer, ZK Composer, Ethereum Composer, DeployContracts, and BlockchainExplorer.</p> <p>Solution accelerators: Mphasis’ solution accelerators include Fabric Utilis, MongoDBController, and IPFS Util.</p> <p>Patents: None.</p>										

About HFS

HFS Research authors



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Saurabh oversees HFS' global research function managing the global team of analysts across US, Europe, and Asia-Pac. He works closely with the CEO to set the strategic research focus and agenda for HFS Research, understanding and predicting the needs of the industry and ensuring that HFS maintains its position as the strongest impact thought leader for business operations and services research.

As an analyst, Saurabh leads our coverage for horizon 3 change agents such as blockchain, business services (such as finance & accounting and supply chain) as well as overarching and cross-cutting themes under the OneOffice concept like digital change management

He is a recognized thought leader and passionate problem solver in the global services industry. With 15+ years of experience across client, provider, advisory, and analyst roles, he brings a uniquely realistic and wide-ranging perspective to our industry's challenges and opportunities. Before joining HFS, Saurabh led strategy for Genpact's CFO and transformation services, helped shape the Business Process Services (BPS) strategy for AbbVie, managed Everest Group's global BPS practice, and worked as a techno-functional consultant at Infosys.



Sam Duncan
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Sam Duncan is a Senior Research Analyst at HFS, based in Cambridge UK. He graduated from Bournemouth University with a degree in economics, throughout which he took a particular interest in macroeconomics, mainly how the evolution of technology accelerated globalization. Throughout his education he also spent some time studying law, accounting and investment management.

Since joining HFS, Sam has developed his understanding of blockchain and continues to explore the latest applications of the technology across a range of industries. He has applied his economics background to keep on top of the latest trends on the banking and financial services industry, and has taken a keen interest in insurance. On top of this he contributes to the HFS Market Index, a quarterly report which breaks down the performance and key events of the leading service providers throughout the previous quarter.

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Tanmoy Mondal is a Senior Research Analyst at HFS Research, identifying global trends in engineering services from both industry & technology perspectives, tracking global outsourcing deals & investments including partnership agreements & R&D announcements in the sector and supporting the domain leads in secondary research, data analysis, PoVs and research writing.

Tanmoy has over 5 years of research, pre-sales and market intelligence experience in TCS, HCL and Tracxn. At his TCS and HCL role, he worked on preparing RFP responses including solution construct and commercial proposition. He was responsible for analyzing the business scenario for ERP implementation for different industry verticals and participated in several Enterprise Transformation projects across domains to optimize the IT landscape, increasing IT integration among client business verticals, improving productivity and reducing business incidents. At Tracxn, he was part of the emerging technology team that helped finding companies (start-ups) specializing in upcoming technologies (virtual and augmented reality, drone etc.) for acquisition and portfolio investments for PE and VC firms.

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Mayank has over 4 years of research, pre-sales and software development experience. Prior to HFS he was part of business strategy and pre sales in Altimetrik supporting vertical heads, sales and marketing team. Before it in his HCL Tech role, he worked in the delivery team of a large medical device client for R&D project.

He holds blockchain certification by IIT & IBM on "Blockchain Architecture Design and Use Cases". His other certification include certification on Google analytics, Scrum, Six Sigma etc. to name a few. He hold certificate in "Strategy Management" from IIM Bangalore.

Mayank holds Master's in Business Administration from Birla Institute of Technology and Science College, Pilani (BITS, Pilani University) and a Bachelor of Engineering in Electrical and Electronics from Jawaharlal Nehru National College of Engineering (Visvesvaraya Technological University), Karnataka.



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