

NEAT EVALUATION FOR INFOSYS:

Blockchain Services

Market Segment: Overall

Introduction

This is a custom report for Infosys presenting the findings of the NelsonHall NEAT vendor evaluation for *Blockchain Services* in the *Overall* market segment. It contains the NEAT graph of vendor performance, a summary vendor analysis of Infosys for blockchain services, and the latest market analysis summary.

This NelsonHall Vendor Evaluation & Assessment Tool (NEAT) analyzes the performance of vendors offering blockchain services. The NEAT tool allows strategic sourcing managers to assess the capability of vendors across a range of criteria and business situations and identify the best performing vendors overall, and with specific capability in the banking, manufacturing & supply chain, and telcom & media sectors.

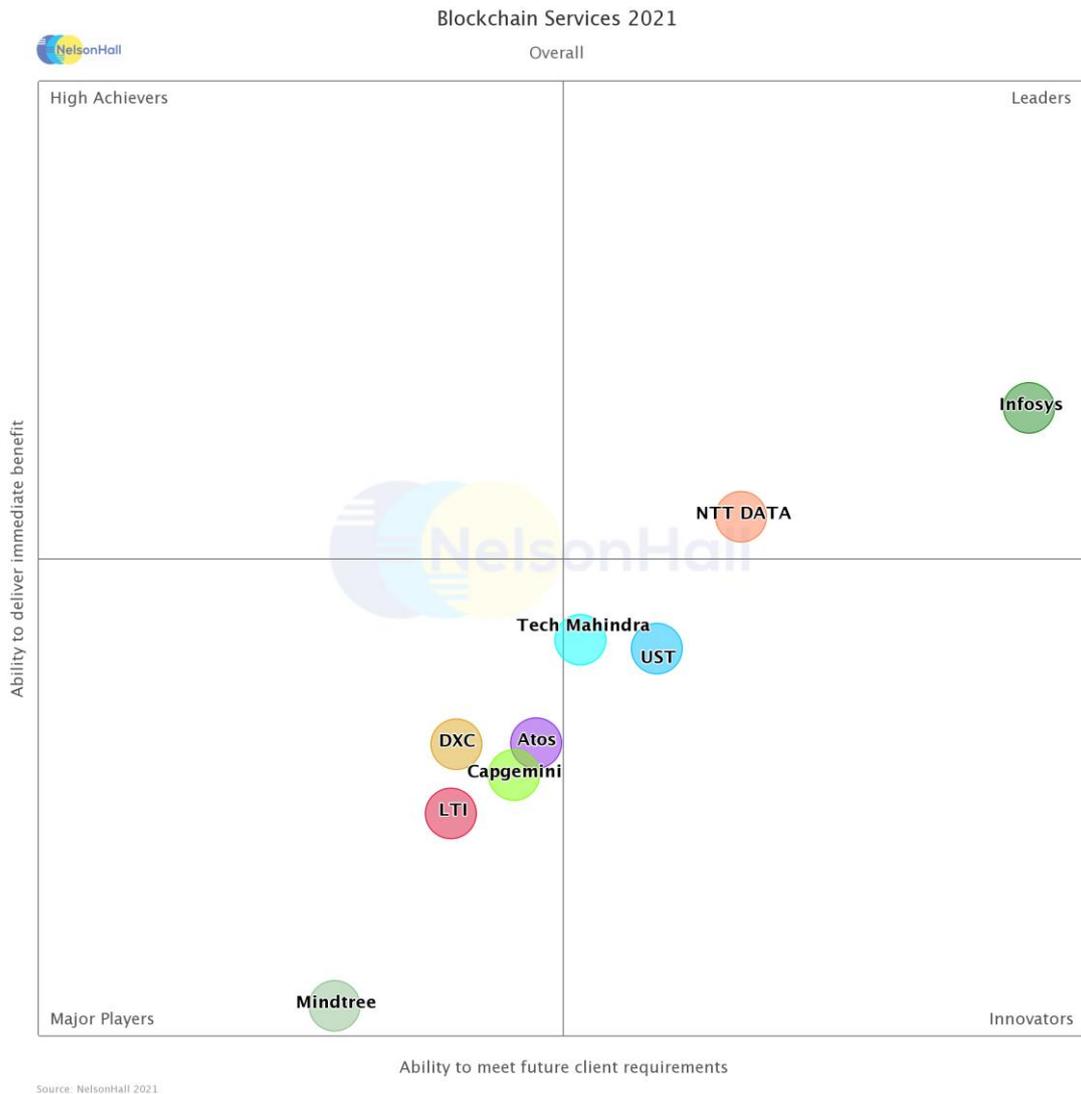
Evaluating vendors on both their 'ability to deliver immediate benefit' and their 'ability to meet client future requirements', vendors are identified in one of four categories: Leaders, High Achievers, Innovators, and Major Players.

Vendors evaluated for this NEAT are: Atos, Capgemini, DXC Technology, Infosys, LTI, Mindtree, NTT DATA, Tech Mahindra, and UST.

Further explanation of the NEAT methodology is included at the end of the report.



NEAT Evaluation: Blockchain Services (Overall)



NelsonHall has identified Infosys as a Leader in the *Overall* market segment, as shown in the NEAT graph. This market segment reflects Infosys’ overall ability to meet future client requirements as well as delivering immediate benefits to its blockchain services clients.

Leaders are vendors that exhibit both a high capability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet future client requirements.

Buy-side organizations can access the *Blockchain Services* NEAT tool (*Overall*) [here](#).

Vendor Analysis Summary for Infosys

Overview

Infosys' offerings are driven by providing end-to-end solutions and capabilities as an ecosystem orchestrator (in addition to being a solution provider) and delivering long-term ecosystem value. The company offers blockchain services in three categories: blockchain consulting services, blockchain business network services, and blockchain enterprise services.

Client engagements typically follow a four-phase journey that comprises of:

- *Explore*: this phase begins with identifying best-fit use cases (1-2 weeks), followed by elaborating the selected use case to define a product backlog and building a POC (3-4 weeks). The phase completes with a business model definition
- *Engage*: this phase takes the POC and develops a prototype that will eventually become an MVP that is piloted (2-4 months), market outreach – onboarding of new members and integration into their systems, and TestNet environment setup and rollout
- *Expand*: this phase expands on lessons learned from the TestNet environment, including live network considerations, to improve the product (1-2 months). It also includes user acceptance testing with each ecosystem participant (1-2 months each) and begins staging work for the network to go live
- *Go Live*: the final phase of the journey with the network going live and a warranty period to monitor production behavior (1-2 months).

Infosys Blockchain Suite of Solutions is principally blockchain platform-agnostic and can run on Ethereum, Hyperledger Fabric, R3 Corda, and other platforms. The suite covers six key themes: supply chain, BFS, citizen services, insurance, manufacturing and retail, and telecom. It includes more than 30 business and technology accelerators.

Infosys also offers its Blockchain Testing Framework for functional and performance testing across distributed ledger technologies for testing scenarios ranging from unit tests to integration and systems tests (e.g., API, smart contract-level testing).

Infosys has formalized its engagement with the startup community and innovation ecosystems by launching its Infosys Innovation Network (IIN), a company-wide initiative. IIN is an orchestrated partnership between select startups and Infosys to provide innovative services to clients to experiment and implement the art-of-the-possible.

As part of its training-as-a-service, the company offers Infosys Blockchain Academy Catalog that offers courses from awareness and foundation programs to blockchain in business, deep-dive courses, and full-stack learning paths for individuals to become blockchain professionals. Infosys uses the same curriculum for building internal talent through LeX and for clients through Wingspan.

For advisory services that include consulting and POC development, Infosys offers flexible pricing contracts. To date, its clients have been comfortable with fixed-price models, especially during experimentation stages. Pricing for services outside of advisory (e.g., pilot networks, production systems governance, and operations management) differs vastly based on several factors: Infrastructure provisioning, functional or business ownership, and operations management are the top three factors that have a bearing on the price.

Infosys uses a centralized delivery methodology to drive its blockchain services. It has ~1.2k dedicated blockchain specialists (up from 600 in Q1 2018), where 90% are located in CoEs in



India, and the remainder is located in various geographic and industry-specific hubs. The company also has 20k experts trained in blockchain through its Infosys Academy (Lex platform) to support its specialists.

Infosys is principally blockchain platform-agnostic; however, recent engagements show a preference for Hyperledger Fabric, R3 Corda, and Digital Asset DAML, with very few projects on Ethereum.

The company also has membership in industry consortia, including BiTA (transport), CBAN (communications), MarcoPolo (trade finance), Phuse (healthcare), SAE (aerospace), and TM Forum.

Infosys targets Fortune 100-scale enterprise-level organizations for its blockchain offerings. The company's engagements are dominated by North America, making up 60% of its current revenue. The company's engagements primarily come from telecommunications and media, followed by BFS.

Infosys currently has eight projects that have gone live at scale and are in the public domain, with over 12 engagements that are live but not in public domain owing to client confidentiality, and 62 in the pilot/POC phase.

Financials

Infosys does not disclose its blockchain-specific revenues, but NelsonHall estimates its revenue from blockchain projects at approximately \$55m, with 70% coming from managed services, 25% from consulting, and 5% from miscellaneous projects.

The company added four new logos in the last six months – solely opening with blockchain – in telecommunications, manufacturing, and government verticals.

Strengths

- Incubation-as-a-service model is appealing to organizations with defined needs
- Mature blockchain presence in BFSI, public & government, retail & CPG, and telecom sectors
- Breadth of pilot and POC activity across a wide variety of industries and use cases
- Infosys Blockchain Testing Framework for functional and performance testing of DLT technologies.

Challenges

- Slow to integrate blockchain with the organization's other technology assets.



Strategic Direction

Infosys' investments over the next 12-18 months focus on four key pillars:

- *Talent*: developing advanced partner certifications in platforms and a framework to double its capability through organic and inorganic growth with external and internal hiring
- *Innovation*: developing technology frameworks and solutions across BFS, government, manufacturing, pharmaceutical, and telecommunications, accounting for industry nuances. It is also maturing its blockchain solution suite with deeper functional capabilities in five specific areas:
 - Business process management
 - Demand response management
 - Supply chain platform
 - Test automation
 - Workflow engine
- *Partnerships*: investing in incubation cells of various consortia to expand networks and for deeper engagement with clients across the globe through partnerships and co-created go-to-market strategies, e.g., in 2020, it developed a platform in collaboration with a U.S.-based cloud computing and virtualization software provider
- *Business Models*: investing in research into economic value models for public and private sector clients to drive value creation and meaningful distribution while also investing in research with academic institutions and ecosystem partners.

Outlook

Infosys' efforts to date have produced a broad portfolio of technology accelerators and business frameworks. Its investments in the next 12-18 months to expand networks of various consortia by developing capabilities that account for industry-specific nuances will bode well for it to build and maintain a pipeline of blockchain opportunities and to convert them into commercial projects – especially when combined with its goal to double the size of its talent pool.

The company's incubation-as-a-service offering will continue to attract interest from organizations seeking new economic value models in collaboration with emerging innovative startups. Overall, Infosys' breadth of sector activity to date, and evolved vision of the blockchain market, solidly positions it in the blockchain solution development segment.

Blockchain Services Market Summary

Overview

Many Fortune 1000 organizations have already used leading BPS vendors and consultancies to undertake digital transformations using blockchain solutions on a minor scale. As solutions continue to grow and mature into robust enterprise-ready offerings, these same organizations are looking to undertake more fundamental and widespread operations digitalization programs involving blockchain. These programs often involve process reimagination, ensuring a single view of information, monitoring the movement of goods and payments, and improving settlement processes and speed.

Primary drivers for blockchain adoption focus on building networks for trusted data exchanges that enable transparency, auditability, and resilience, and to support new business models through ecosystem collaboration. Deployments are being led by organizations in the banking and manufacturing sectors, where cross-border remittances, document verification, and order reconciliation have been frequent areas of focus for blockchain implementations.

Looking ahead, the primary drivers for blockchain adoption will be transitioning from standalone individual networks towards 'networks of networks' – so, food provenance blockchain networks will communicate with cargo transport blockchain networks and retail ERP blockchain networks in a larger, more holistic ecosystem.

By this point, blockchain will have demonstrated reliable enterprise ROI, and most vendors will have packaged their use cases into COTS blockchain-enabled solutions that price-sensitive buyers will look to adopt.

Buy-Side Dynamics

Drivers for the adoption of blockchain services include:

- Single-source trusted data exchange: eliminating data sync and integrity issues, standardizing data collection and sharing, and providing proof of authenticity
- Data resilience: the decentralization of, and the immutability of, data stored on blockchain networks
- Automation: programmable smart contracts ensure transactions are automatically executed per pre-defined rules and checks to ensure data quality that improves operational efficiency
- New business models: building new marketplaces and digital processes for business opportunities
- Data foundation on which to implement emerging technology solutions, especially AI/ML
- Pressures from regulators and end-consumers for transparency and traceability for regulatory compliance and social responsibility.

Improved operational transparency and auditability is the most important target benefit for buyers and most are satisfied with improved data trust and transparency from adopting blockchain.



Roadblocks to blockchain adoption centers on its nascent state with unclear ROI in many use cases, technological immaturity of solutions and DevOps tools, and shortage of skilled resources.

Market Size & Growth

The global blockchain services market is worth \$496m (2020), with a CAAGR of 53.3% through 2025.

The blockchain implementation and management market is led by the North American and Europe regions. However, Asia Pacific will have the strongest growth over the next five years.

BFSI, telecom & media, and public & government sectors will see the fastest growth in blockchain services. BFSI will be the fastest growing sector stemming from operational efficiencies and new services around digital currency. Low transaction fees enabled by digital currencies will especially drive growth in the media sector. Digital identity will be a major driver for government adoption of blockchain for identity management and for real-time document issuance and verification, including licenses and certification.

Success Factors

The key success factors for blockchain service vendors include:

- New business models: use of design thinking to reimagine processes with blockchain to take clients beyond operational efficiencies to realize new business models and revenue streams
- Mature business frameworks: provision of mature blockchain business frameworks – supported by technical accelerators – to take clients through the journey from idea/concept to at-scale deployment
- Rapid deployment: ability to offer COTS solutions and technical accelerators for rapid deployment that support multiple blockchain platforms
- Ease of solution development: continued investment in developing DevOps tools that encapsulate blockchain-specific capabilities to enable non-blockchain experts to streamline development and customization of solutions
- Innovation: established programs to curate a deep pool of partners, especially startups, to bring innovative best-in-class blockchain technologies to clients
- Proven experience: ability to demonstrate (e.g., referenceable clients) proven experience and leadership in blockchain transformation in client-specific use cases and with quantifiable impact.

The challenge in business transformation using blockchain is helping clients understand the true value of collaborative ecosystems over short-term incentives.

Outlook

Over the next few years, expect the following developments:

- Primary drivers for blockchain adoption will be transitioning from standalone individual networks towards ‘networks of networks’ – so, food provenance blockchain networks will communicate with cargo transport blockchain networks and retail ERP blockchain networks in a larger, more holistic ecosystem
- By this point, blockchain will have demonstrated reliable ROI for over 30 enterprise use cases, and most vendors will have packaged these use cases into COTS blockchain-enabled solutions that price-sensitive buyers will look to adopt
- DevOps tools will mature to where non-blockchain development professionals can completely take over building and deploying blockchain solutions for simpler use cases, and will be able to do ~70% of the work for complex use cases
- With blockchain implementation commonplace, interoperability between networks will now be a top business requirement
- Deployments will continue to be led by the banking and manufacturing sectors with government and media sectors having grown the fastest during the forecast period. The adoption by governments for the issuance of digital identities aimed at privacy and security of citizens and businesses will trigger growth in other sectors
- The blockchain implementation and management market will continue to be led by the North American and European regions with Asia-Pacific close behind and experiencing the fastest growth of the three.



NEAT Methodology for Blockchain Services

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet client future requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet client future requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- **Leaders:** vendors that exhibit both a high capability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet future client requirements
- **High Achievers:** vendors that exhibit a high capability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet future client requirements
- **Innovators:** vendors that exhibit a high capability relative to their peers to meet future client requirements but have scope to enhance their ability to deliver immediate benefit
- **Major Players:** other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Note that, to ensure maximum value to buy-side users (typically strategic sourcing managers), vendor participation in NelsonHall NEAT evaluations is free of charge and all key vendors are invited to participate at the outset of the project.

Exhibit 1

'Ability to deliver immediate benefit': Assessment criteria

Assessment Category	Assessment Criteria
Offerings	<ul style="list-style-type: none"> Breadth of applications of blockchain Breadth of blockchain platforms Application to supply chain Application to retail banking Application to capital markets Application to insurance Application to healthcare and life sciences Application to telecoms and media Application to government Application to manufacturing Application to retail Application to travel, transport, logistics Application to energy and utilities Application to drive new digital process models Blockchain consulting capability
Delivery Capability	<ul style="list-style-type: none"> Scale of blockchain delivery capability Maturity of accelerator - overall Maturity of accelerator - supply chain Maturity of accelerator - retail banking Maturity of accelerator - capital markets Maturity of accelerator - insurance Maturity of accelerator - healthcare and life sciences Maturity of accelerator - telecoms and media Maturity of accelerator - government Maturity of accelerator - manufacturing Maturity of accelerator - retail Maturity of accelerator - travel, transport, logistics Maturity of accelerator - energy and utilities Extent of blockchain tech partnerships Ability to offer blockchain interoperability
Client Presence	<ul style="list-style-type: none"> Overall blockchain client presence BFSI presence Healthcare presence Telecom and media presence Government presence Manufacturing presence Retail presence Travel, transport, logistics presence Energy and utilities presence



Exhibit 2

‘Ability to meet client future requirements’: Assessment criteria

Assessment Category	Assessment Criteria
Level of Investments	Level of investment in proprietary blockchain tools
Sector Investments	Supply chain process emphasis
	Retail banking process emphasis
	Capital market process emphasis
	Insurance process emphasis
	Healthcare and life sciences process emphasis
	Telecom and media process emphasis
	Government process emphasis
	Manufacturing process emphasis
Client Perceptions of Suitability	Retail process emphasis
	Travel, transport, logistics process emphasis
	Energy and utilities process emphasis
	Client likelihood to recommend
	Perceived strength of partnership
	Perceived ability to transform processes with blockchain

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.



Sales Enquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:
Beth Lindquist at beth.lindquist@nelson-hall.com

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