A Buyers' Guide to Larsen & Toubro Infotech (LTI)

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L&T Infotech (LTI): Quick Primer

L&T Infotech (LTI) is a subsidiary of Larsen & Toubro (L&T). LTI is the software development and consulting arm, while the sister concern, L&T Technology Services (L&T TS), is the hardware development and engineering services division. These entities work together to serve large multi-outsourcing contracts. Both LTI and L&T TS primarily serve their parent company for technology requirements along with catering to the larger external enterprise market and are separately listed on the National Stock Exchange (NSE), India.

Over the last two years, LTI is working hard on differentiating its services from the "me too" pack by becoming a digital partner which offers emerging technologies such as analytics, automation, IoT, and blockchain.

Recently, LTI consolidated its digital capabilities and strengthened its leadership and sales teams. As a result, its sales engine boasts of a healthy pipeline of US$ 900mn in 2018 as against US$ 250mn the previous year. With this renewed aggressiveness, LTI is looking at competing with Tier-I players.

As the margins become more stable and wining rates improve, LTI is finally venturing into M&A. Acquisition of AugmentIQ for Analytics and Syncordis for Digital Core Banking has given an additional push to LTI. LTI is optimistic about making a few more selective and niche acquisitions in the next couple of years.

LTI inherits technical know-how, a strong brand name, and industry knowledge from its parent and applies it in the manufacturing and other relevant industries. This backing also helps LTI to be flexible in terms of commercial models that align with customer requirements and account management culture.

LTI has expertise in serving the BFSI and Energy verticals. However, with a changing focus on Digital and IoT, the manufacturing vertical will soon become a stronger vertical—LTI will leverage the parent company's clientele for cross-selling opportunities.

In an effort to boost it's digital credentials, LTI is focusing on building and investing in global facilities, talent, and creation of new platform/solutions, around automation and business transformation.

Other Quick Facts:

- ~23,124 Employees as of March 2018
- Geographic Presence (Estimated)
  - India - 86% (Mumbai, Pune, Chennai, Bengaluru) North
  - America -1.5% (US, Canada, Mexico)
  - EMEA - 7 %
  - Philippines – 1.5% (Manila)
  - Other APAC - 4% (Australia, Singapore, China, Japan)

Strategy

Strategy

- Management is fully focused on building a new-age organization by prioritizing hiring the best talent at all levels in a bid to deliver next-gen technology services. In fact, the leadership team was scaled and strengthened in the past year with experienced hires from Infosys, Accenture, Mindtree, etc.
- In addition, a high-profile pre-sales team is set up with 40% of it being onshore.
- Management's confidence on growth is underpinned by a) a stronger deal pipeline of ~US$ 900M (as against US$ 250M a year ago), b) improved deal win rates even against larger peers, and c) its differentiated offerings in the Digital segment (accounts for over 30% of its revenue).
- In addition to its focus on the US and Europe. The company aims to expand into adjacent markets like South Africa, the Middle East, and India.
- Increase in Digital revenues constitutes ~33% as of FY 2017 and the aim is to double it by 2018-19.
- Increasing wallet share—looking at mining of its top 50 accounts. Revenues for its top accounts are growing at a much higher rate than the company's average and LTI has a strategy to increase the Digital component of existing engagements by including Analytics and Digital in Every Account that has been given a code word of "ADEA."
- Client satisfaction is steadily improving as clients are looking toward LTI as their digital transformation partner.
- LTI is aggressively forging alliances to build competencies such as Microsoft, SAP, Oracle, Cisco, Nutanix, HP, GE digital, Informatica, Workplace, Duck Creek, and many others.
- Global presence and expansion in new geographies, not only for delivery centers but also to penetrate new markets.
- Focused on investing in the platform approach. The Mosaic AI platform is built with an ecosystem mindset using open source and mega ISVs as its key building blocks.
- "Business-to-IT Connect" model with the parent L&T: With this model, LTI leverages the domain experience, institutional knowledge, and technical expertise of the L&T Group across various industries, which aids in the development and delivery of new IT solutions & services.
- A strong order pipeline, deal closures, and focused account management are the traits LTI leadership is confident of going forward.
- LTI continues to feel optimistic about its BFSI vertical. LTI strongly feels that the data analytics and digital suites in core banking will lead to new opportunities. In manufacturing, cloud-enabled modernization and innovative solutions will drive further growth. The industry-specific strategy for energy and CPG verticals are in line with top line growth and LTI is bullish about cashing in on the digital dividend in these sectors.

Strengths and Weaknesses

Strengths	Weaknesses
• Access to parent company's network, infrastructure, and clients that present opportunities to cross-sell	• Lacks onshore presence to take advantage of client proximity
• LTI is a mid-sized IT services company with a basic portfolio mix that has a customer-centric culture.	• Limited global reach in terms of acquiring new clients as well as employee strength
• At the same time, LTI has been very quick at adopting new and emerging technologies. It combines advanced analytics and the Industrial Internet of Things.	• The firm has not been recognized by clients as a key innovator in the IMS space, falling short of expectations in both execution and innovation in client surveys.
• LTI has been successful in increasing wallet share with its top existing clients.	• Its exposure to emerging services such as digital, automation, and engineering services is comparatively low and the major work comprises ADM.
• Clients and partners praise LTI's proactive approach and willingness to invest in project development, joint solutions, and relationships.	• Management churn over the last five years had left a big gap and time lapse in terms of growth; nevertheless, the organization is on a fast lane to turn around.
• LTI has strong capabilities in software development and maintenance.	• Exposure to enterprise applications segment (most vulnerable to the cloud) is higher than peers.
• LTI offers a startup approach to innovation through business innovation centers located at global client locations. It has onboarded more than 350 startups using its NILE platform.	• LTI has witnessed three changes in its CEO position since 2011 and is one of the reasons for the late entry to the Tier-I league.
• In addition to having deep domain expertise, clients characterize LTI talent as knowledgeable, open, easy to work with, and having a "roll- up-the-sleeves" mindset.	• Actual growth over the years has remained flat YoY. • Skewed revenue toward three verticals: BFS, Insurance, and Energy and Utilities. These verticals together constitute ~60% of total revenue.
• LTI's revenue growth has been largely organic. BFSI is the largest vertical for LTI and accounts for ~47% of total revenue.	• Pricing pressure in traditional services/renewals: A number of engagements have traditional fixed pricing models.
• The new LTI is making investments in CEO, COO, and President Sales, and current management has successfully rebuilt trust, confidence, and consistency.	• Lacks a co-creation and collaboration relation with clients—Needs a teamwork mindset as a cultural shift. • Struggles to differentiate itself from other service providers.

Service Offerings Grid

Legend:
- **Orange** = HfS Blueprint Assessments Highlight These Services at Par Excellence
- **Blue** = HfS Research Sees Tremendous Potential backed by Investments and Traction
- **Dotted** = Not Enough Data to Make an Assessment

Category	Offering	(Overall)	Banking & Finance	Insurance	Energy & Utilities	CPG & Retail	Hi Tech	Life Sciences & Healthcare	Media & Entertainment	Manufacturing
Services	Automation	Orange	Orange	Orange	Orange	—	Orange	—	—	Orange
	Cloud	Blue	Blue	Blue	Blue	Blue	—	—	Blue	Blue
	Consulting	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
	Cloud, Infrastructure & Security	Blue	—	—	—	—	—	—	—	—
	Assurance Services	Blue	Blue	Orange	Blue	Blue	—	—	Blue	Blue
	Cyber Security	Blue	Blue	Orange	Blue	Blue	—	—	Blue	Blue
	Applications Management	Orange	Blue	Orange	Blue	Blue	—	—	Blue	Blue
Enterprise Solutions	Oracle	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
	SAP	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
	Microsoft Dynamics	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
	Cloud Apps	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
	Maximo	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
	Salesforce	Orange	Orange	Blue	Orange	Blue	Blue	Blue	Blue	Blue
Digital Transformation	Data & Analytics	Orange	Orange	Orange	Orange	—	—	—	—	Orange
	Internet of Things	Orange	Orange	Orange	Orange	—	—	—	—	Orange
	Mobility	Blue	Blue	Blue	Blue	Blue	—	—	Blue	Blue
	Digital Integration	Blue	Blue	Blue	Blue	Blue	—	—	Blue	Blue
	Artificial Intelligence and Cognitive	Orange	Orange	Orange	Orange	—	—	—	—	Orange
Platforms	Mosaic	Orange	Orange	Orange	Orange	—	—	—	—	Orange
	Industry Platforms	Orange	Orange	Orange	Orange	—	—	—	—	Orange
	Technology Platform	Orange	Orange	Orange	Orange	—	—	—	—	Orange

Industries

Industry Focus

BFS

- A significant portion of LTI's work today is concentrated on supporting banking platforms, traditional application systems, and network services that it inherited by acquiring Citigroup's Canadian IT unit in 2011.
- The only step towards digital services in BFS is an acquisition of Syncordis for Digital Core Banking.
- LTI is working hard to get new clients in BFS to reduce heavy dependency on its top customers.
- Invested in labs for blockchain and proofs-of-concept
- Boasts of proprietary platforms and software to simplify processes

Insurance

- LTI has sizable insurance industry tools, technology, and platforms.
- The clientele has been steady and strong in North America, Europe, and India.
- It sold its first license of the MOSAIC platform to a US-based global insurer in Jan 2018.
- Apart from the core and vanilla ADM solutions, LTI is investing in new digital proofs-of-concept solutions using analytics and automation.

Energy and Utilities

- Over the years, LTI has gained good domain knowledge of the Oil & Gas and Utilities sector with the help of opportunities provided by the parent, L&T, which works with the E&U industry very closely.
- The offerings span from customized ADM to end-to-end services such as power portfolio management solution and data center services.
- LTI has the capability to serve mid-size to large organizations in this segment; however, we have seen smaller deal sizes in terms of ACV as well as scope of services.

CPG & Retail

- LTI serves more than 10 companies in the CPG & Retail sector.
- Apart from traditional offerings such as ADM and testing, a large part of the offerings are related to data and analytics.
- The new digital offerings such as AI/Automation and Cloud-based applications have found takers.

Manufacturing

- LTI largely serves its parent L&T, which has one of the biggest manufacturing client credentials.
- LTI is forging ahead with Industry 4.0 offerings and making its case stronger with IoT and Blockchain use cases.
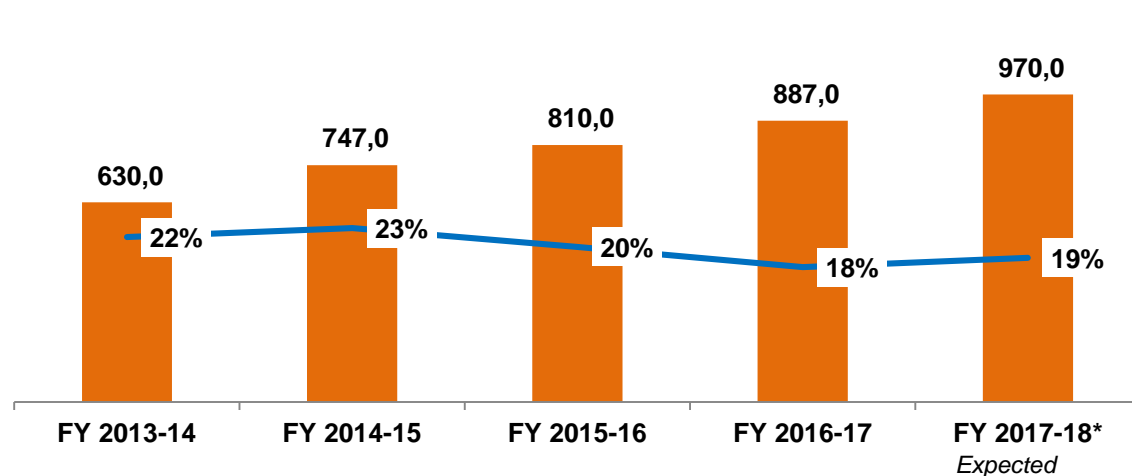
Clients*

LTI Financial Performance

Revenue (US$ M)/Operating Margin % by Calendar Year

- FY 2013-14: 630,0 — 22%
- FY 2014-15: 747,0 — 23%
- FY 2015-16: 810,0 — 20%
- FY 2016-17: 887,0 — 18%
- FY 2017-18* Expected: 970,0 — 19%

Growth vs Operating Margin by Calendar Quarters

Quarters: Q3 2015, Q4 2015, Q1 2016, Q2 2016, Q3 2016, Q4 2016, Q1 2017, Q2 2017, Q3 2017, Q4 2017

Legend: — Margin — Revenue Growth
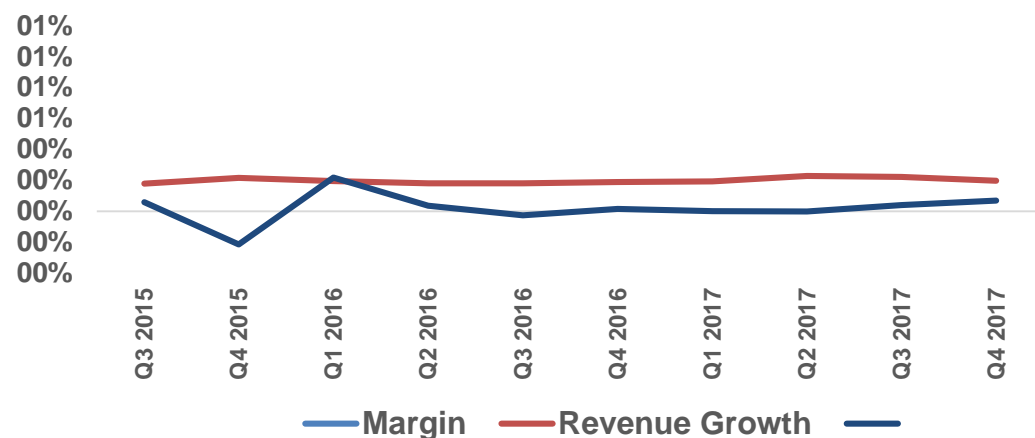
*FY ending December 31, 2017 (12 months)
Source: HfS Research, Service Provider Revenue Tracker Database, 2018

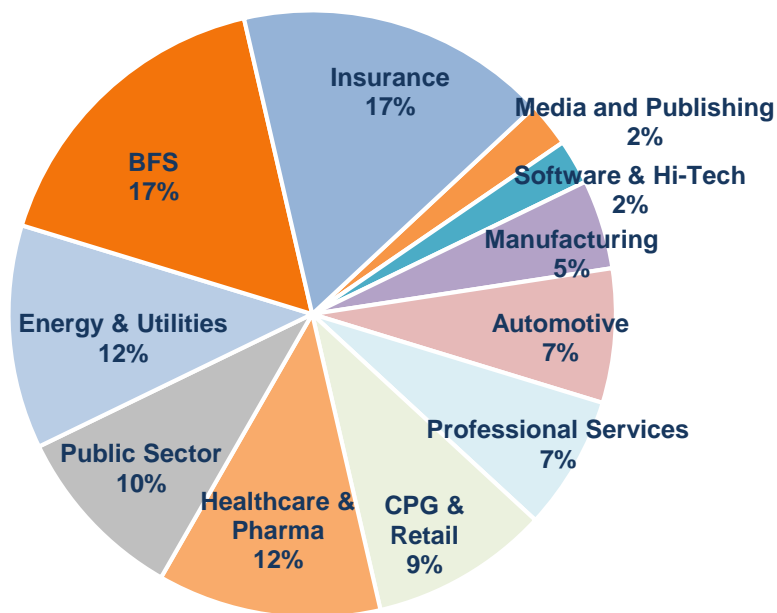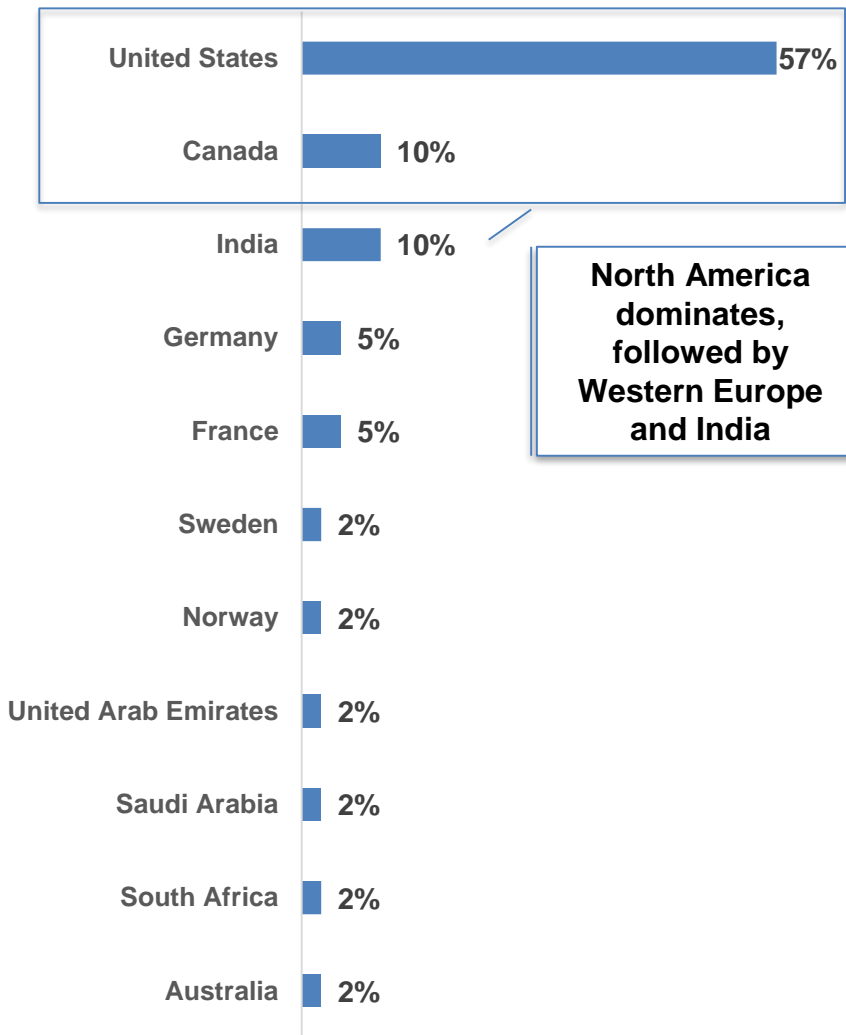## Revenue Breakdowns FY 2017* (% Share)

- ROW: 4%
- India: 7%
- Asia Pacific: 2%
- Europe: 18%
- North America: 69%

- Platform based…: 4%
- Digital solutions: 15%
- Testing: 9%
- IMS: 11%
- ERP: 23%
- ADM: 38%

- Others: 5%
- High-Tech, Media &…: 10%
- CPG, Retail and Pharma: 8%
- Energy and Process: 11%
- Insurance: 21%
- Banking and financial…: 26%
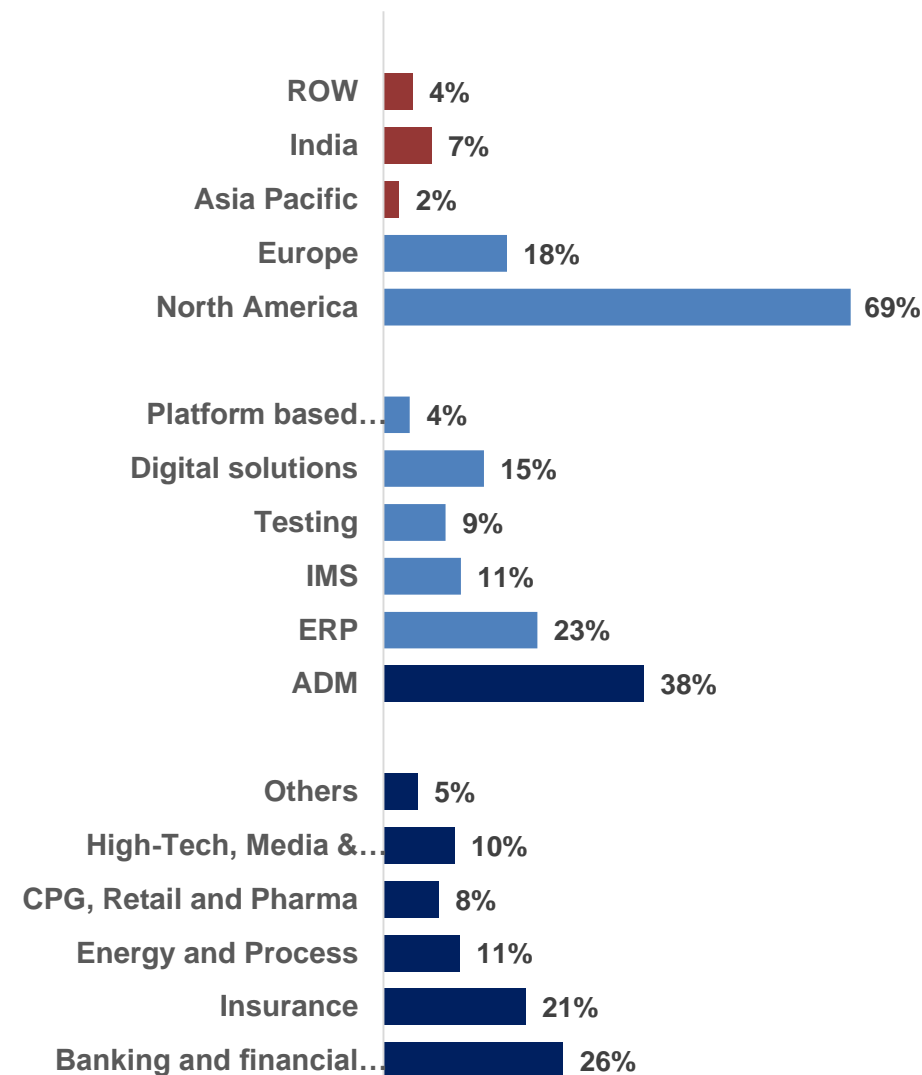
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LTI Contract Overview - 2011 to 2017

Type of Engagements Won

Cloud	2%
Multi IT Outsourcing and BPO	2%
Multi IT Outsourcing	5%
SaaS	5%
Infrastructure Outsourcing	10%
Digital	24%
ADM	52%

Contracts Won by Location

United States	57%
Canada	10%
India	10%
Germany	5%
France	5%
Sweden	2%
Norway	2%
United Arab Emirates	2%
Saudi Arabia	2%
South Africa	2%
Australia	2%

North America dominates, followed by Western Europe and India

Contracts won by Industry

- Insurance 17%
- Media and Publishing 2%
- Software & Hi-Tech 2%
- Manufacturing 5%
- Automotive 7%
- Professional Services 7%
- CPG & Retail 9%
- Healthcare & Pharma 12%
- Public Sector 10%
- Energy & Utilities 12%
- BFS 17%

Source: HfS Research, IT and BPO Contract Database Tracker, 2018 - Contracts announced in the public domain only.

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LTI Profiles From HfS Blueprints (2014-2017)

LTI was quoted by our HfS Analyst team as:

- *"A sound engineering services firm focused on Manufacturing, but broadening its expertise rapidly." (HfS Blueprint Report: Enterprise Artificial Intelligence (AI) Services 2018, Tom Reuner)*

- *"A sound engineering services firm focused on Manufacturing, but broadening its expertise rapidly." (Internet of Things Services, 2018 – Jim Eastlake, Mayank Madhur)*

- *"Service provider with deep oil and gas expertise and a strong focus on digitizing operations with IoT, cloud, and engineering". (Energy Operations 2017 – Derk Erbe)*

- *"Robust technical blockchain services with in-house solution accelerators and a start-up". (Enterprise Blockchain Services, 2017 – Saurabh Gupta, Tanmoy Mondal)*

- *"Technology focused service provider building procurement platform expertise and serving parent company Larsen and Toubro." (Procurement As-a-Service, 2016 – Derk Erbe).*

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Blueprint Performance Summary
5 Blueprints from 2014 to 2017

Winner's Circle	High Performer	Execution Powerhouse	High Potential
	1. Internet of Things Services, 2018 2. Energy Operations, 2017 3. Enterprise Blockchain Services, 2017		1. Internet of Things Services, 2018 2. Procurement As-a-Service, 2016

LTI

High Performer

A sound engineering services firm focused on manufacturing, but broadening its expertise rapidly.

LTI
Let's Solve

Blueprint Leading Highlights	Strengths	Challenges
• A technically knowledgable engineering house • Experienced in the manufacturing vertical • Willing and prepared to invest to succeed • Flexible commercial model	• **IoT Platforms**: LTI has its own proprietary platform, Mosaic, though they support an array of third party alternatives. Mosaic is designed for ease of data discovery, machine learning, and artificial intelligence, delivering industry-specific use cases for accelerated digital innovation on its own as well as with flexibility of third-party alternatives. • **Differentiation**: LTI focus on manufacturing and other industry verticals where they have deep domain expertise through their parent company's heritage. Their Mosaic platform is a major asset. They have a comprehensive partner network, a set of ready-made frameworks and accelerators, pre-build industry solutions, and innovative business models. • **Analytics and Security**: LTI continues to invest in analytics and security. This is evident from their extensive IP portfolio. • **Engagement Strengths:** LTI has extensive technical knowledge. They are a stable company with a long history. Their commercial model is flexible to align with customer requirements. Their dedicated focus on delivery excellence is highly appreciated by their customers. They continuously invest in technology and in improving their domain knowledge.	• **Scale and Experience:** Out of the 100 IoT engagements that were worked upon by LTI, about 50% were in focused verticals like manufacturing and the other 50% in automotive, transportation, construction, and CPG. While LTI is strategically playing to their strength, they need to expand their footprint to other industries. • **Regional Focus:** LTI revenue is predominantly from North America and Europe, whereas other geographies are slowly picking up. • **Engagement Challenges**: Project handoff can be problematic. Documentation could improve. They can lack domain expertise, but are investing to build it rapidly in their target markets.

Value Chain Coverage:

- **Strategic Consulting**
- **Productization**
- **Deployment**
- **Operations**

Relevant Acquisitions and Partnerships	Key Clients	Global Operations Centers	Key Proprietary Technologies

• 2017: Acquired AugmentIQ Data Sciences Pvt. Ltd. ,an innovative start-up offering IP-based, big data and analytics solutions
 	
• Partnerships with:
  - GE Predix, PTC Thingworx, OSIsoft, Schneider, IBM Bluemix, SAP, Microsoft Azure, Mojio, Amazon Web Services, Oracle, Salesforce, Nutanix, Dell, Kontron, Teltonica, Ubisense, CISCO, IBM Watson, Informatica, SAS, MicroStrategy, Teradata, Qlikview, Tableau, MongoDB, Cloudera, Indegy, GE Worldtech.
	Client split by geography:
	• US:60%
	• Rest of Americas :4%
	• Europe:24%
	• Asia:7%
	• Australia:4%
	Vertical specialization includes:
	• Manufacturing, Hi-tech, Media and Telecom, Travel and aerospace, Logistics, Hospitality, Retail and CPG, Financial Services, Insurance, Healthcare, Energy & utilities, Public sector, Construction
	28 clients including:
	• American multinational energy company
	• Leading Cement Manufacturer in France
	• US Oil & Gas Major
	• India' Largest Power Utility
	• Global manufacturer of medical equipment.
		• **Headcount:** 550+ FTEs
		• **Locations**: Delivery breakdown by FTE percentage:
		  - Onshore:20%
		  - Nearshore:2%
		  - Offshore:78%.
			• Mosaic Things
			• Mosaic Decision
			• Mosaic Experience
			• Mosaic AI
			• Mosaic Automation
			• Integration Maturity model
			• FAST- Omni-Channel Assurance Framework
			• BigTest- Big Data Assurance
			• ARCoT Framework
			• Automation Maturity Framework
			• Change Management Framework
			• Automation Index Framework
			• Automated Interface Repository.

Enterprise Artificial Intelligence (AI) Services 2018

High Potential

Global service provider focusing on platform approach and accelerating the buildout of proprietary knowledge and AI assets.

LTI

Blueprint Leading Highlights	Strengths	Challenges
• Vision for and investments in the evolution of Intelligent Automation • Leverage of Design Thinking • Governance and testing services • Training and supporting clients.	**Renewed corporate strategic focus:** The IPO of L&T Infotech in 2016 has ended an era of change and lack of strategic clarity. LTI has refined its brand and strategic direction under the initiative LTI 2.0. This allows for more certainty in decision making in particular when it comes to innovation topics such as AI. Clients reference that they like LTI's focus on business value. Similarly, they highlighted that LTI is happy to go beyond scope as they are looking to position themselves for a larger share of wallet. **Focus on platform approach:** LTI is focusing its investments on a platform approach. Its Mosaic AI platform is built with an ecosystem mindset using open source and mega ISVs as its key building blocks. The platform is offering in excess of 50 microservices including speech to text, vision services, and ticket classification, which is underpinned by an ever increasing taxonomy and knowledge base that forms its IP. The approach is rooted in the core belief that AI has to be about enhancing human lives. LTI believes this strategy will work as it is seen with an end-to-end perspective of solving problems by plugging in intelligence into systems and context. The Mosaic AI platform ecosystem approach seems to work. To accelerate this, it is building up an academy as well as online training. **Formalized AI practice:** Albeit nascent and small in size, LTI has a formalized artificial intelligence and cognitive practice. This focus has led to a solid strategic vision. Howe ver, LTI has to demonstrate that it can scale this vision and drive it through the organization. Thus far, has focused on industrialized services and been more conservative around project-centric requirements.	**Invest in brand and stakeholder management:** As LTI is accelerating its efforts around its LTI 2.0 initiative, it needs to double down on conveying its strategic intent to the broader market. The turbulent last couple of years require a clearer articulation of its strategic bets, in particular as the market moves toward the secular shift of digital and automation. **Consistency and leverage of data assets**: LTI should explore finding efficiency across its data assets. The cross fertilization with analytics efforts could be enhanced. LTI is conscious of not wanting to be dependent on data requirements, hence the focus is to build out domain-specific assets. **Align AI with broader Intelligent Automation strategy**: LTI has been leveraging intelligent automation as a differentiator to win large deals. Continuing this trend, they should align AI stronger with broader automation requirements.

Plan

Implement

Manage

Operate

Optimize

Relevant Acquisitions/Partnerships	Key Clients	Operations	Technology Tools and Platforms
Acquisitions include: • AugmentIQ **Partnerships include:** • Google • Microsoft • AWS • IBM Watson • Workfusion **Technologies include:** • Stanford NLP • NLTK • OpenNLP • Scikit • DarkFlow • TensorFlow • OpenCV • Keras.	LTI works with clients across industry sectors: • Large midstream oil and gas company • Niche medical device company • Large media and entertainment major • Large insurance broker • Large UK-based bank in Singapore • Multinational CPG manufacturer • Large UK based bank in South Africa • Leading US global bank • Leading Japanese automotive manufacturer • Leading network device manufacturer.	**Geographic footprint and scale of the AI practice:** Artificial intelligence and cognitive practice has been focusing on multi-disciplinary skills and has hired talent from some of the leading educational institutes in India like the IIT and Indian Statistical Institute. This includes skills in programming, statistics, mathematics, and algorithm development around NLP and vision. They focus on a design thinking approach to solve problems and have dedicated labs and experience centers to enable innovation and IPs being developed. Consists currently of around 1560 FTEs and focuses on IP-driven approach to solve narrow problems and address globally.	**MOSAIC AI platform:** Helps companies accelerate operational digitization by building cognitive capabilities into their existing knowledge assets. It deploys self-learning systems to deliver intelligent and contextual content to all users. The platform includes responsive interfaces, intelligent "bots," and NLP capabilities to transform legacy systems. Solutions IP built on the platform include: • **Cognitive Claim**: Faster claims processing; integrating deep learning services like IBM Watson Conversations and Vision. • **NextGen Service Desk:** A self-service chat bot with intelligent ticket classification, smart routing, and auto resolution. • **Financial Crime EDD Automation:** Intelligently automates creation of EDD document from unstructured data with entity co-referencing and scoring against financial crime exposure categories. • **Trade Finance Automation:** Automation of extraction of entities and compliance screening for assisted operations AI and automation.

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Larsen & Toubro Infotech (LTI)
Robust technical blockchain services with in-house solution accelerators and a start-up approach.

LTI

High Performer

Blueprint Leading Highlights

- **Referencible client**
- **Strong technical capabilities**
- **Ecosystem robustness**
- **Integrated approach**
- **In-house solution accelerators**
- **Market development initiatives**

Value Chain Coverage:

- **Strategic advisory**
- **Prototype development**
- **Production build**
- **System Integration**

Strengths

- **Integrated approach under MOSAIC.** LTI is looking at blockchain in conjunction with promising technologies such as IoT, OCR, and cognitive technologies under its Mosaic Platform.
- **Start-up approach.** LTI offers a start-up approach to innovation through business innovation centers located at global client locations. It has onboarded more than 350 start-ups using its NILE platform. It partners with academia like MIT CISR and IIT Mumbai.
- **Market development efforts in India.** LTI is partnering with Industry Consortia and startups like Zero Field Labs and Primechain to educate and influence Banking and Financial services entities in India. LTI recently hosted the Buterin Hackfest in partnership with the Ethereum Foundation as part of the Blockchain India Week 2017 aimed at bringing blockchain awareness to India. It also recently hosted the Bankchain Consortium meeting which saw participation from prominent banks and FIs from India and the Middle East.
- **Solution accelerators and enablers.** LTI has identified 50+ use cases and created 15+ ready-to-deploy blockchain solutions. Its Canadian Transfer Agency platform, Unitrax, with $750 billion assets under management, gives it a unique platform to build blockchain led solutions for custody clients and understand the impact of disintermediation.

Challenges

- **Scaling up blockchain practice.** Though LTI has a broad end-to-end vision for blockchain services, the overall practices needs more investment in scaling up. It has plans to scale to 200+ resources in 1.5 years
- **Going beyond PoCs.** LTI's experiences thus far are in the Conceptual/PoC/Pilot stage. However, the company is rapidly creating a strong foothold by initiating development on a couple of production grade projects. While there is an overall market adoption challenge given the nascency of blockchain, the ability to support a client through to production is fast emerging as a clear differentiator.
- **Brand recognition.** Although LTI has decent capabilities in the blockchain services market, it needs to augment its brand recognition.
- **Enterprise adoption challenges.** Lack of regulations and standards, talent crunch, security concerns, and overall market nascency are key inhibitors of enterprise adoption. LTI will need to continue to invest and educate the market to overcome these challenges.

Industry coverage

Manufacturing	Life sciences	Healthcare	Financial services	Professional services**	Insurance	Travel and hospitality	Telecom and media	Energy and utilities	Public sector	Retail

Use cases

Wallets	Auditing	Compliance	Asset management	Trading	Payments and settlements	Lending	Investing	Trade finance	Microfinance
Claims processing and payment	Identity	Security	Anti-counterfeiting	Provenance, track and trace	Master patient index	Longitudinal health records	Clinical trials	Title records and ownership recording	Voting

Blockchain practice overview

- Blockchain is a part of Digital Consulting practice
- 50+ resources with blockchain labs in Mumbai, Paris, Munich, and US
- 20+ engagements for 10+ clients including Nordic banking organization, global CPG major, global reinsurer company, Indian construction organization, Australian Bank

Blockchain platform and technology capability

- LTI's blockchain platform expertise include Ethereum, Hyperledger, Quorum and Multichain
- Blockchain incorporated into LTI's MOSAIC platform that provides IoT, RPA, decision-science, AR/VR, and AI capabilities
- LTI's blockchain solutions portfolio includes
  - Trade Finance Platform: Platform for tracking consignments across multiple entities
  - Raw Material Tracking: IoT enabled tracking of raw materials for origin details and shipment status
  - Supply Chain Optimization Solution: Supply chain track and trace solution on blockchain assisted by temperature sensing technology

Blockchain ecosystem and partnerships

- LTI is one of the first members of the Microsoft Blockchain Council and is partnering with several blockchain based start-ups and tech providers. It also draws from its strong association with academia such as MIT, IIMs and ISI

**Professional Services industry coverage includes auditing, accounting, legal, real-estate, etc.

LTI

High Performer

Service provider with deep oil and gas expertise and a strong focus on digitizing operations with IoT, cloud, and engineering.

LTI

Blueprint Leading Highlights	Strengths	Challenges
• Vision for oil and gas market evolution and services • Depth of industry-specific capabilities • Integration of partner services • Quality of account management	**Strong vision and experience for IT/OT integration:** A subsidiary of an engineering, manufacturing, construction, IT, and financial services conglomerate, LTI is a specialist in operational technology and information technology in complex environments. LTI is well positioned to be an IT/OT integration partner to oil and gas companies. **Broad experience and expertise:** LTI has experience in delivering services across the entire oil and gas value chain, with a particular strength in technology services and engineering services. **Willingness to co-invest**: Clients and partners praise LTI's proactive approach and willingness to invest in project development, joint solutions, and relationships. LTI makes innovation part of its contracts and is open to introduce new commercial models. **Strategic partner:** Clients see LTI become a more strategic partner, with hungry and interested professionals. LTI has strong offerings for the midmarket companies in oil and gas. LTI's partner ecosystem notably features a go-to-market alliance with Weatherford, geology and geophysics data management partners, and SAP in AWS cloud capabilities. **Talent:** In addition to having deep domain expertise, clients characterize LTI talent as knowledgeable, open, easy to work with, and having a "roll-up-the-sleeves" mindset. LTI leverages its parent organization, and in the oil and gas context, in particular L&T Hydrocarbon, to attract top talent and is able to utilize L&T talent in building solutions and utilizing them as a test-bed for productizing offerings and Connected Enterprise solutions.	**Expanding consulting capabilities to target mid market:** LTI's strategy includes focusing on independent upstream operators, oil field services companies and smaller midstream and downstream operators. Attracting more consultants with industry expertise and investing in broader, more strategic skills is critical to develop industry solutions that address the business challenges of mid market players across the value chain. **Expand foothold in EMEA:** With a global client base, LTI's delivery locations are concentrated in the US and India. Building its presence in EMEA would benefit further growth of the oil and gas practice. Inorganic growth through a targeted acquisition could help LTI make a big step in energy operations. **Branding and name recognition in oil and gas industry:** As it targets new segments of the oil and gas market and broadens its capabilities, LTI has to advance its name recognition in the industry. LTI already augments its industry expertise and penetration through Larsen & Toubro's market presence as supplier of valves for midstream and downstream companies.

Value Chain Services Maturity

Upstream
Midstream
Downstream
Cross Value Chain BPO and Engineering
Cross Value Chain ITO

Relevant Acquisitions/Partnerships	Key Clients	Global Operations	Proprietary Technologies/Platforms
Acquisitions: 2015: AugmentIQ **Partnerships**: **Technology**: Dell, SAP, Oracle, Microsoft, AWS, Siemens, Dassault Systems, IBM, GE Digital, TIBCO, OSIsoft, HP, CISCO, Pegasystems, Nutanix, Quintiq, Emerson, CyberX, NRX, Skire, Bitstew Systems, Thoughtspot, Duck Creek, Salesforce.com, Workday, ServiceNow, Successfactors, Coupa, Automation Anywhere, BluePrism, Workfusion **Oil & Gas Specific**: Weatherford, Petroleum Experts (PETEX), Energistics, Schlumberger, ESRI, Apache, Allegro, PPDM, Oil & Gas International, P2ES (Merrick Systems), Primavera, Invensys (Schneider Electric), eVision, Veritas, Riversand, Rockwell Automation, Yokogawa, Mitsubishi, Vuzix, Coreworx, Bentley, EnergyIQ, Daqri **Academic:** MIT-CISR, University of Petroleum & Energy Studies, Indian School of Petroleum.	30+ clients globally including • Integrated super major • National oil companies • Independent oil companies • Exploration and production companies • Pure play pipeline companies • Pure play refining and petrochemicals	**Headcount**: 2115 FTE **Locations**: • North America -23% (US, Canada, Mexico) • EMEA - 5 % • India - 69% (Mumbai, Pune, Chennai, Bengaluru) • Philippines - 1% (Manila) • Other APAC - 2% (Australia, Singapore, China, Japan) LTI operates Energy COEs/Innovation Centers at Mumbai, Houston, and Perth.	• *GeoProQuik:* Subsurface (G&G) data management tool • *Euphoria:* Digital oilfield solution • *Well Prognosis Tool:* Well lifecycle tracking • *Integrated Command Centre:* Remote monitoring, operational security, and safety of assets and personnel • *Integrated Operations Centre:* Analytical dashboard for remote monitoring of key KPIs of equipment • *Field Service Mobility Solution:* Mobile field workforce • *Advanced Pipeline Leak Detection:* IoT enabled leak detection • *Digital Refinery:* Integrated refinery operations and monitoring • *InDoSuM:* Integrated Services for unified downstream operations • *Terminal Management System:* Fuel terminal management • *Fuel Compliance Monitoring Solution:* Renewable fuel accounting system for refineries • *PRIME Plant:* Predictive maintenance and knowledge management solution • *OPERA:* IoT powered, cloud based intelligent platform driving plant performance.

HfS Research

L&T Infotech

Technology focused service provider building procurement platform expertise and serving parent company Larsen and Toubro.

L&T Infotech

Blueprint Leading Highlights	Strengths	Challenges
• Ability to Leverage External Value Drivers • Actual Delivery of Services • Strategy for the deployment of Intelligent Automation • Flexibility to Deliver Point & End to End Solutions and Integration of Supporting Technology.	**Experience in Manufacturing**: Through the delivery of procurement services across the value chain to Larsen & Toubro, L&T Infotech has good experience in heavy equipment manufacturing and the opportunity to serve more customers from this industry and in categories like MRO. **Offers Services Across the Value Chain:** Although L&T Infotech has a relatively small procurement practice, it has capabilities in Strategic Sourcing, category management, contract management and technology management **Technology Management**: L&T Infotech has strong capabilities in software development and maintenance and has translated that capability to procurement. It supports clients with development and maintenance around procurement technology platforms. **Cloud Solutions Center of Excellence:** As part of the technology management focus, L&T Infotech is investing in partnerships with procurement technology companies, like Coupa. The partnership includes a CoE focused on helping clients improve procurement effectiveness using procurement technology and a joint go-to-market strategy. **Leveraging Automation and Platforms**: L&T Infotech's vision for new procurement services focusses on a combination of automation technologies and cloud based procurement platforms, to enable clients' rapid adoption of these technologies. Clients comment on the quality of L&T Infotech's architecture team.	**Expand Client Base:** L&T Infotech mainly supports its parent company Larsen & Toubro and a few other global customers with procurement services. It needs to expand the client base for procurement in order to build deeper capabilities in strategic sourcing, category management and transactional procurement at scale. **Change Management and Organizational Awareness**: Clients mention L&T Infotech has to enhance capabilities in change management and organizational awareness to be able to land bigger client engagements and effectively operate in large client organizations. **Transactional Procurement**: L&T is expanding its limited portfolio of transactional procurement services. Work around transactional procurement currently centers around the implementation of technological solutions for process specific challenges, such as a tool for the procurement helpdesk. **Geographic Footprint**: L&T Infotech has to expand its presence and procurement delivery capabilities globally if it wants to compete with other service providers in this Blueprint for larger PO contracts. Particularly sourcing and category management relies on knowledge of local markets, something L&T doesn't have currently in many markets outside India, where it works for Larsen & Toubro subsidiaries. **Develop Ariba Expertise**: Clients would like to see L&T Infotech continue to develop Ariba expertise, as they foresee rising demand.

Value Chain Services Maturity

Strategic Sourcing
Contract Management
Supplier Management
Technology Management

Transactional Procurement

Acquisitions and Partnerships	Key Clients	Global Operations Centers	Proprietary Technologies
Acquisitions NA **Partnerships** • **SAP/ORACLE** • **Coupa** • **Ariba** • **Tradeshift** • **FusionOps** – supply chain • **Brilyuhnt** – enterprise search • **Brickworks India** - Contract Management • **Gramner** - analytics • **TinkerLab** - Design Thinking • **BluePrism** - Robotic Process Automation	2 clients in procurement outsourcing including: • Global CPG Corporation • Global Engineering & Construction Conglomerate.	• Headcount: 555 Locations (Procurement Resources): • North America -10% (USA [6 Centers- Bakersfield (California) ; Edison (New Jersey); Hartford (Connecticut); Houston (Texas); Jupiter (Florida); Tampa (Florida)] , Canada [Mississauga (Ontario)]) • UK - 1% (United Kingdom [Belfast]) • EMEA - 8% (South Africa [Johannesburg], 9. Germany [Munich]) • India - 80% (Centers – Mumbai (3), Pune (2), Bangalore (2) , Chennai (1)) • Other APAC - 1% (Singapore [Singapore]).	• MOSAIC^{TM} for accelerated Digital transformation

About the authors and HfS

HfS Research

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Overview

- Hema is responsible for The Buyers Guides, Location and M&A Analysis and supports various Data analytics initiatives at HfS Research.

Previous Experience

- Hema has worked across all the facets of IT Services and BPO research for more than 14 years now. She understands the nuances and dynamics of the BPO and Technology industry.
- Specializing in custom research, competitive analysis, outsourcing contract analytics, location assessments, quantitative studies to qualitative research.
- She has held senior research positions in organizations such as, Information Services Group, Accenture and ITFinity Solutions

Education

- Hema holds an MBA in Marketing from Manipal University, a full time 'Management Program for Women Entrepreneurs' from Indian Institute of Management (IIM), Bangalore and a Bachelor's degree in Commerce from the University of Mumbai.

HfS Research: Defining Future Business Operations

The HfS mission is to provide visionary insight into the major innovations impacting business operations: Automation, Artificial Intelligence, Blockchain, Internet of Things, Digital Business Models and Smart Analytics.

HfS defines and visualizes the future of business operations across key industries with its OneOffice™ Framework.

HfS influences the strategies of enterprise customers, to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors. The "As-a-Service Economy" and "OneOffice" are revolutionizing the industry.

Read more about HfS and our initiatives on our website.

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