REPORT REPRINT

Infosys plays in multiple layers of the industrial IoT arena

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The company is at the front lines of enabling its customers' digital transformation journey, and the situation is no different for IoT, the newest and most hyped poster child for digital business transformation.

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The good news for Infosys is that it has all the key raw materials to lead in the Internet of Things (IoT) – deep domain expertise and the tech assets in the places that matter, including engineering, embedded, cloud, mobility and analytics. The bad news is that much of the early work done by enterprises in IoT has been done 'in-house.' In the inaugural version of the 451 Research Voice of the Enterprise IoT Q1 2016 survey, 60% of respondents reported that their organizations are foregoing consulting or professional services firms for their IoT initiatives, and instead are opting to keep it all in-house.

That said, the multi-dimensional complexity of IoT is setting up nicely to reward actors that can shield this complexity by offering end-to-end solutions that reduce the risks associated with IoT investment as in-house approaches become unwieldy and lose economic viability. The client demands surrounding investment and operational risk reduction creates a catalyst for Infosys to evolve how it monetizes all it can offer in IoT.

THE 451 TAKE

In the overall IoT business, industrial IoT (IIoT) is driving revenue today for enterprises, hence global SIs and consultants. Infosys is well positioned to ride the next wave of IT transformation driven by IoT with the combination of in-house assets in key areas such as analytics and platforms, deep vertical market expertise and incumbency, a growing ecosystem that includes co-innovating with partners such as GE, and its vocal seat at the table in forums such as the Industrial Internet Consortium (IIC) and academia partnerships. As with every player in this segment, Infosys will need to expertly balance investments targeting IoT as current data reveals that in-house development is still the dominant source of IoT experimentation and proofs of concept. Just as IoT is causing industrial enterprise customers to transform, it will require Infosys to transform as well. Bespoke IoT or IoT-like project engagements will ultimately need to give way to relatively new ways of doing business for Infosys, including platform-based subscription revenues and risk-sharing and outcome-based models to capture revenue scale and meet customer demands.

CONTEXT

Infosys is one of the global leaders in consulting, technology, outsourcing and next-generation services for IoT-fertile industries such as retail/CPG, energy, manufacturing, financial services, and healthcare/life sciences. In FY 2016, Infosys generated $9.5bn in total revenue and has 194,000+ employees on the payroll. While IoT revenue is not publicly disclosed, growth in the IoT business has been 'faster than other service lines' as the market evolves from hype to reality and proof-of-concept experiments pass muster and move into production deployments.

The complexity of IoT requires participation across the entirety of Infosys, with horizontal units providing common capabilities to delivery organizations. Roughly speaking, Infosys has 600-1,500 dedicated FT employees working on IoT with the possibility to move that number up by a factor of 3-4x for specific project requirements. In the past year, Infosys has logged involvement in over 100 projects that involved IoT enablement and about 20-25 that involved strategy consulting.

The Infosys IoT business sits within the company's Engineering Services business line, employing about 10,000+ engineers responsible for services around product development and R&D services, split between its Core Engineering, its Network & Embedded systems practice and its Software Product Development practice. Infosys draws its IoT capabilities from these talent pools.

TECHNOLOGIES/SERVICES

Infosys uses a hybrid approach to enabling technologies with both home-grown and partner-driven contributions. The epicenter of the company's IoT capabilities lie within its engineering services unit, which spans functional disciplines such as core engineering services, networking and embedded systems, and software products and platform development engineering. Infosys is prepared to assist customers through their transformational journey in a number of roles – from strategic consultant, end-to-end provider to tactical point solutions and every step in between. Specifically, Infosys calls out expertise in embedded technologies, mechanical product design and development, hardware electronics, software products, human-machine collaboration and engineering analytics. Infosys' ability to bring a holistic ecosystem across the entire IoT value chain would differentiate it from the rest of the players. Its end-to-end menu of engagement roles incorporate consulting, solution definition and system integration, along with embedded hardware engineering, platforms and solutions – delivered either as bespoke projects or as subscription services.

In terms of its own intellectual property, Infosys has a conceptualized Mana platform targeting asset management and predictive analytics use cases using machine learning and artificial intelligence. Infosys' Information Platform (IIP) can be deployed either in horizontal scenarios to support IoT data lakes and analytics to industry-specific solutions such as asset maintenance. Using IIP, each customer engagement is evaluated in terms of fit for proprietary Infosys technology, customer preference or partner capabilities. The company reports that its long-term goal is to transition its revenue mix from bespoke project services to recurring revenue services through its 'software and services' and platform subscriptions, but that transition is still nascent. Execs also acknowledge that IoT may also push Infosys into riskier business models such as outcome-based solutions, which is being accepted by enterprises.

GO TO MARKET/PARTNERS

When Infosys first started getting serious about IoT, it was looking at nearly every industry and potential usage scenario. Digging in, it became clear to the IoT team that the near-term opportunities were predominately in the classic arena of asset efficiency. This reality is reflected in its industry go-to-market focus in three major areas: asset efficiency, including condition monitoring and track and trace; security, safety and quality of life, including connected car, wearables, connected home, healthcare, and insurance; and last, in smart eco-system plays like smart cities, energy, farming and retail.

Infosys can point to several customer IoT deployments in a variety of industries, by its own count it's had over 130 in the past 18 months. A selection of its ongoing projects includes usage-based insurance telematics, wearable medical devices, heavy asset equipment monitoring and connected vending solutions. A typical customer might leverage Infosys across an entire product lifecycle, from physical design, to data modeling, to connected services through enablement such as 'digital twin,' which infers the digital representation of physical systems. The digital twin concept was the basis of Infosys' partnership with GE, which, to be fair, is a company that shows up on nearly every global IoT enabler's partner sheet. Infosys recently announced its partnership with KUKA Robotics, a leading automation and robotics company, to collaborate on Industry 4.0 specifically in the area of software platforms.

Other partners in Infosys' IoT ecosystem include PTC, ThingWorx, SAP, Oracle, Telit, IBM, Microsoft Azure, Hitachi Data Systems, SAS and Tableau. Each of these partners, of course, is also working with several Infosys competitors. In IoT, everyone needs to work with everyone else. Infosys joined the Industrial Internet Consortium in 2015 and reports membership has been paying off in the development of test beds, ecosystem development and valuable knowledge transfer, including sharing notes on overcoming common client challenges. The GE partnership was born out of its membership in IIC. Two of its initial IIC test-bed solutions include an asset efficiency solution using real-time analytics and industrial digital thread solutions in support of design, manufacturing and supply-chain analytics with an additional four in matriculation. It has also created an Industry 4.0 Lab and concept center.

Most recently, at the Hannover Fair (Hannover Messe Industrie) Infosys, jointly with acatech and RWTH Aachen University, announced a collaborative partnership focused on Industry 4.0.

COMPETITION

As is typical in the hyper-fragmented IoT enablement segment, there are several classes of competitors seeking to address either all or partial elements of the Infosys value proposition. The first type of competitor Infosys faces are the internal efforts of target companies driven by internal IT staff or via tactical bespoke projects done with SIs or consultants. This comes down to the classic 'build vs. buy' decision. In the traditional systems integration and outsourcing market, Infosys is up against the household names including TCS, Wipro, Cognizant, Atos, Accenture, IBM, Unisys and Tech Mahindra. When you look at the strategy and consulting arena, add in Deloitte, PWC, EY and a long tail of regional and vertical market specialists such as connected car focused specialist Luxoft. Infosys will also compete against the global consulting and SI arms of telecom operators such as Telefonica, Orange, DT, AT&T, Verizon and large IT/OT infrastructure and service suppliers such as Hitachi, Huawei, Cisco, Hewlett Packard Enterprise, Siemens, Schneider Electric Nokia and Ericsson.

The second set of competitors includes platform point players that will solve a specific need or IoT point solution. In the pure 'IoT platform' segment, Infosys will both compete and partner with the likes of PTC, LogMeIn Xively, EVRYTHNG, Exosite, myDevices, PLAT.ONE, Mesh Systems, Arrayent and Ayla Networks. The complexity of the IIoT market is that nearly all named competitors could also be potential partners, depending on the specific scenario, which introduces significant complexity in terms of go-to-market efficiency.

SWOT ANALYSIS

STRENGTHS
Infosys' strong combination of deep industry expertise and digital platform expertise set the stage for its IIoT success.

WEAKNESSES
Infosys will need to transform customer-facing business models to fully scale its IIoT opportunities and currently lags competitors effectively structuring and managing such deals.

OPPORTUNITIES
Infosys should elevate its marketing effort and leverage its IIC chair at the table to create a brand 'halo' with likes of GE and IBM via its ongoing test bed work.

THREATS
Over-investment relative to achievable revenue opportunity for Infosys. The company will need to delicately balance a cadre of partners that can also be competitors.