Hitachi forms Hitachi Insight Group for top-down focus on the Internet of Things

CHRISTIAN RENAUD

10 MAY 2016

The company has formed a new business unit that combines expertise in information technology and operating technology from across its portfolio of firms, and announced the launch of the Hitachi Lumada Core IoT Platform to support simplified IoT product creation.

451 Research®

Hitachi has formed a new business called Hitachi Insight Group, which combines information technology (IT) and operating technology (OT) expertise from across its portfolio of companies. The new group also announced the launch of the Hitachi Lumada Core IoT Platform to support simplified IoT product creation from within Hitachi, and with its partners and customers.

THE 451 TAKE

Hitachi is unique in its breadth and depth of both IT and OT expertise, which it has intelligently combined in this new business unit. Its list of reference accounts for digital transformation deployments is impressive, and gives it expertise in key IoT verticals at scale. The IoT platform segment is currently crowded and confusing, so Hitachi's Core IoT Platform message is timely to help clarify the multiple uses of the term in the industry. The organization and resourcing of the business unit is promising, but this large reorganization could cause a stall at a critical time in market development. Strong partnerships and vertical market expertise will help the company make headway quickly.

CONTEXT

Hitachi Insight Group has announced Lumada (derived from 'illuminating data'), its Core IoT Platform. Given the high quantity of 'platforms' in the IoT market (a category term that, it could be argued, is quickly approaching zero value from overuse), the company chose to label Lumada as a 'core' platform, which is to say it is not focused on the device-connectivity components, like offerings from Gemalto and PTC. The core platform moniker implies higher-level functions such as data ingestion and blending, orchestration, data analytics and visualization (which draw on the company's Pentaho acquisition), as well as the Hitachi Streaming Data Platform and other technologies.

The company's initial focus is on continuations of markets where Hitachi has had previous success and expertise. The heavy industry arena is one well known to Hitachi, specifically in mining and construction, as well as the utility sector (water and electricity). In Europe, the transportation sector, including rail systems, continues to be a major focus.

The manufacturing sector, specifically in Europe under the aegis of Industrie 4.0 in Germany, has grabbed the interest of a number of technology vendors including IBM, Siemens, Bosch and Cisco, and is another focus area for the new Insight Group. In the Americas, the focus is on the emerging opportunities surrounding IoT in healthcare, including the company's partnership with Royal Philips, sustainable energy solutions, urban development, and expanding its public safety and smart city efforts (already in full swing in the US).

Hitachi also has a professional services (consulting) arm that will be working closely with (and in some cases, within) the new unit, offering packages that are, in essence, customizable blueprints and configurations that have been verified by Hitachi to support specific industry use cases. The Insight Group also plans, in the future, to leverage the artificial intelligence and cognitive computing capabilities originally developed by the Hitachi Robotics organization. This latter point is important as the sheer volume of data generated by 'things' within IoT exceeds the ability for human-based triage, and systems such as those developed by IBM and Hitachi will be needed to sift reams of data for actionable insights.

COMPANY

Hitachi Insight Group is a wholly owned group of the Japanese conglomerate Hitachi, Ltd, encompassing its IoT-related services and products across the entire Hitachi portfolio. The group states that Hitachi has 33 offerings in the market today that are categorized within the purview of IoT, as well as 16,000 employees focused on IoT in some capacity across all of Hitachi (the Insight Group itself will have nearly 7,000 employees at inception).

The company has invested considerably in IoT-related R&D over the last three years ($2.8bn), and plans to make an additional $1bn investment in the Insight Group over the next three years. Hitachi acquired big-data analytics firm Pentaho in June 2015 for an estimated $600m, picking up 300 additional employees for (at the time) its Social Innovation Business Unit, which has since been folded into the new Insight Group.

PARTNERS

Hitachi has partnerships with a number of technology firms in key IoT markets. In the smart cities market, AT&T and Hitachi announced a partnership focused on urban development and energy monitoring. In this partnership, the companies are compensated entirely based on a percentage of the energy savings that customers (i.e., cities) receive from implementing the joint technology solution.

Insight Group, in coordination with its organizational sibling Hitachi Data Systems, has partnered with Royal Philips to provide analytics infrastructure and connectivity to that firm's medical equipment. Finally, the company has a partnership with Microsoft, and is leveraging the Redmond giant's Azure IoT cloud offering to support its Hitachi Visualization product in the public safety/smart city market.

CUSTOMERS

In addition to those partnerships, the company has a number of other ambitious digital transformation efforts under way that are worth mention. In the UK, Insight Group is working alongside Hitachi Consulting and Hitachi Rail to support its on-time 'transportation as a service' offering. The trains are owned by Hitachi, which will sell the desired business outcome (reliable, fast rail service with no downtime) to the UK Transportation Department, and manages the digital infrastructure and rolling stock (trains) itself. This requires careful control of costs, and leverages Lumada's predictive failure-analysis capabilities for preventative maintenance to avoid costly repairs or downtime.

Another key example is the Copenhagen City Data Exchange (CDE), which has been in development with Denmark's capital city for months, and will be formally unveiled and launched later this month. The CDE will aggregate data generated from IoT sensors and devices throughout the city, as well as its businesses and citizens (the topic of a forthcoming 451 Research User Deployment Report) into a single data pool that, in turn, is leveraged by the many public and private organizations that require access. This includes location information, social-media tracking, video surveillance and data generated by emergency dispatch services, among other sources.

COMPETITION

As we stated, the combination of IT and OT experience gives Hitachi a unique advantage in a sector dominated by partnerships such as General Electric-IBM, and Siemens-Oracle. A number of IT vendors have chosen to partner with legacy OT vendors for vertical market expertise. Others, such as Dell and Hewlett Packard (which have experience being embedded in OT environments like X-ray machines and magnetic resonance imaging scanners) have (so far) eschewed OT partnerships other than those they have with existing go-to-market channel partners that they sell embedded PCs to.

There is no shortage of platform providers, from component connectivity to analytics-focused platforms such as Amazon AWS IoT, Cisco/Jasper and Microsoft Azure IoT. 451 Research currently tracks over 100 IoT platform providers; but admittedly, other than Rockwell Automation and Siemens, few have the OT depth of experience that Hitachi brings to the table.

SWOT ANALYSIS

STRENGTHS
It has combined expertise in both the IT and OT domains, as well as a handful of marquee early IoT deployments, which sets the company apart from a raft of IoT-related startups.

WEAKNESSES
Large global conglomerates such as Hitachi are frequently less nimble than smaller, focused startups that can react faster to a quickly evolving IoT market.

OPPORTUNITIES
The conversion of legacy OT systems to connected IoT systems has just begun across all sectors, representing a large potential addressable market to be divided among companies that have the capabilities to deliver technology and integration services to achieve desired business outcomes.

THREATS
Hitachi Insight Group is entering a noisy market with large, well-heeled technology vendors that have no qualms about partnering or acquiring valuable OT expertise to close the divide between pure IT players and IT/OT hybrids.