

IDC PERSPECTIVE

Triveni Turbines Partners with TCS for Remote Monitoring Solution

Stacy Crook

EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: Triveni Turbines and TCS Partner on Remote Monitoring Solution

Triveni Turbines is a global manufacturer of industrial steam turbines. The company partnered with Tata Consultancy Services on a project to create a remote monitoring solution. This remote monitoring solution is leveraged by the aftermarket services team within Triveni Turbines to provide market differentiating customer service while also providing the product engineering team with useful product performance data.

Key Takeaways

- Manufacturers can leverage IoT data internally to create better products, as well as externally to provide better customer service.
- IoT projects are complex because of the fact that they include integrating hardware, networks, and software; working with a third-party provider that has experience in a specific domain can help speed the time to market of that solution.
- While an IoT-based solution like remote monitoring can be very beneficial to the end customer, initially, that customer may not be comfortable with the idea of a third-party collecting data from its environment.

Recommended Actions

- Manufacturers should tie expected IoT project outcomes to the digital transformation strategy set out by the C-suite. Doing so will increase the likelihood of executive sponsorship.
- The success of externally focused IoT solutions rests on the customer's acceptance of those offerings. Organizations that wish to gather data from their customers' premises must be ready to discuss security, governance, risk, and compliance when presenting such offerings.
- While a manufacturer has deep experience with its plant technology, much of the value of IoT lies in integrating machine data with IT systems and creating user-friendly applications. Customers should consider engaging with third-party services firms that can provide guidance on strategy in addition to assisting with project implementation and broader life-cycle services.

Source: IDC, 2019

SITUATION OVERVIEW

Introduction to Triveni Turbines

Triveni Turbines is a global manufacturer of industrial steam turbines. The company is a major manufacturer of turbines within India, but it also provides power generation equipment to over 70 other countries across several industries. Triveni Turbines has two major strategic business units (SBUs): one unit that is focused on selling and setting up new turbines and another that is focused on providing aftermarket services for Triveni's own turbines as well as turbines manufactured by other OEMs. The IoT project the company has deployed is within the aftermarket services SBU of the firm.

Triveni's Business Drivers for an IoT Project

Triveni Turbines had several key business drivers that led it to engage with Tata Consultancy Services (TCS) on an IoT project. Although the company does close to 50% of its business outside of India today, it wants to aggressively expand its international business in the coming years. In addition, Triveni wants to differentiate from competitors by offering more benefits for its customers – many of whom are very cost conscious. Therefore, Triveni Turbines set out to find a solution that would allow customers to achieve higher return on investment (ROI) on their existing assets, resulting in a reduced need to outlay capex for new assets.

Developing a Remote Monitoring Solution

Triveni Turbines believed real-time visibility into machine health would offer important data the company could use to help its customers make the most of these expensive assets. Triveni's CEO, realizing the strategic importance of this initiative, was a key sponsor of the project. Therefore, the company set out to develop a remote monitoring solution that would give it real-time status on the machines and provide alerts when something was amiss. By gaining this insight, Triveni can help customers get ahead of possible failures and unplanned outages.

To build the solution, Triveni's internal IT team, in partnership with the customer service team, began building some prototypes of the functionality they would like to have in a remote monitoring application. Then the company decided it would like to bring in a third party to help the company execute on its vision. Given the strategic nature of this project, Triveni wanted to partner with a company that had a high level of expertise in the IoT market and could serve as a one-stop shop for everything it needed to execute on the project in a timely manner. Based on its past experience in working with TCS, Triveni felt the company could also serve as an appropriate partner on this new initiative.

Working with TCS

While Triveni had a vision of the features its remote monitoring application would need, the company relied heavily on TCS to help it develop the solution architecture. From a technology perspective, TCS designed the gateways that would help transport turbine data to the cloud, developed the final applications that would run on mobile and laptop devices, built the analytical models that would feed into those applications, and hosted the solution in the cloud for Triveni. Triveni believes that working with a company that already had experience in this space and used agile development methodologies helped the company get to market much faster than it could have on its own. The company also appreciated that TCS could serve as a single provider for consultative, engineering, and hosting services.

Challenges

Triveni reported the major challenge it faced with this initiative has been helping its customers become comfortable with the new offering. In the past, turbine data may not have been captured at all, or if it was, it may have only been within the confines of an operational technology system, like SCADA. Asking customers to send the turbine data to the cloud was a new paradigm for many, and security concerns have been raised. However, Triveni has found that over time, as clients become more comfortable with the security model of the solution and the potential benefits they can realize by taking advantage of this service, the number of customers adopting the remote monitoring solution has steadily risen.

Outcome

While Triveni Turbines is still in the early days of this project, the company is already beginning to see some early success. By being able to see what is happening in its customers' environments in near real time, the company is able to provide more proactive service and a faster response when issues do arise. Understanding how its machines are performing is also useful to Triveni from a product engineering perspective. In the future, the company plans to use the IoT data collected to take care of engineering changes in its current-generation Turbines and leverage the data for new designs as well. Triveni believes that this combination of being able to continually improve its products and provide market differentiating levels of customer service serve as key strategies toward its ultimate goal of international expansion.

ADVICE FOR THE TECHNOLOGY BUYER

- Manufacturers should tie expected IoT project outcomes to the digital transformation strategy set out by the C-suite. Doing so will increase the likelihood of executive sponsorship, which then increases the chance of successfully scaling the project broadly enough to achieve a strong ROI.
- The success of externally focused IoT solutions rests on the customer's acceptance of those offerings. In addition to the potential business benefits of such solutions, organizations that wish to gather data from their customers' premises must be ready to discuss security, governance, risk, and compliance.

While a manufacturer has deep experience with its plant technology, much of the value of IoT lies in integrating machine data with IT systems and creating user-friendly applications. Customers should consider engaging with third-party services firms that can provide guidance on bridging the IT/OT divide, in addition to project implementation and other services to manage the deployment over its full life cycle.

LEARN MORE

Related Research

- *The Industrial IoT Platform as the Core for OT and IT Convergence* (IDC #DR2019_T8_SC, March 2019)
- *IDC Market Glance: Internet of Things, 1Q19* (IDC #US44789917, January 2019)
- *Worldwide Internet of Things Forecast Update, 2018-2022* (IDC #US44755019, January 2019)
- *IDC FutureScape: Worldwide IoT 2019 Predictions* (IDC #US44390618, October 2018)

- *IDC FutureScape: Worldwide Manufacturing 2019 Predictions* (IDC #EMEA43135818, October 2018)
- *TCS 2018 Analyst Event Emphasizes Agile Business and a Machine-First Approach for Client Success* (IDC #US44359518, October 2018)
- *Worldwide Internet of Things Software Platform Forecast, 2018-2022* (IDC #US42635618, May 2018)
- *IDC Perspective: A Vertical View of the IoT Platform and Solution Market* (IDC #US43538718, April 2018)

Synopsis

This IDC Perspective provides an overview of a recent engagement between global IT services provider Tata Consultancy Services, and Triveni Turbines, a global manufacturer of industrial steam turbines to create a remote monitoring solution. This remote monitoring solution is leveraged by the aftermarket services team within Triveni Turbines to provide market differentiating customer service while also providing the product engineering team with useful product performance data.

"This case study is a great example of how manufacturers can leverage IoT data internally to create better products, as well as externally to provide better customer service," says Stacy Crook, research director, IoT at IDC. IoT projects are complex because of the fact that they include integrating hardware, networks, and software; working with a third-party IT services provider that has experience in a specific domain can help speed the time to market of that solution."

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com

Copyright Notice

This IDC research document was published as part of an IDC continuous intelligence service, providing written research, analyst interactions, telebriefings, and conferences. Visit www.idc.com to learn more about IDC subscription and consulting services. To view a list of IDC offices worldwide, visit www.idc.com/offices. Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or web rights.

Copyright 2019 IDC. Reproduction is forbidden unless authorized. All rights reserved.

