Business challenge

Smart sensor technology enables new avenues for innovation and delights consumers with first-of-a-kind products. How could Suunto maximize the potential of its solutions through collaboration?

Transformation

Developers and innovators are diving deep into the ocean of possibility created by the Internet of Things, but one company can't harness the power of this technology alone. That's why Suunto is making it easier for collaborators to develop innovative products based on Movesense, its proprietary smart sensor technology, with IBM® Cloud™ solutions.

Results

Generates
new revenue streams by enabling access to new markets

Accelerates
product development by removing barriers to innovation

Adds
value for consumers through new partnerships between Suunto and third parties

Suunto

Builds next-generation IoT applications through ecosystems of collaboration

Since 1936, Suunto has been at the forefront of design and innovation for sports watches, dive computers and sports instruments used by adventurers all over the globe. The company physically and mentally equips outdoor adventurers to conquer new territory. Based in Vantaa, Finland, the company is a subsidiary of Amer Sports Corporation. To learn more about Movesense, Suunto's proprietary smart sensor technology, visit www.movesense.com.

"With an open development environment powered by IBM solutions, we can branch out to different business areas and create new, lucrative revenue streams."

—Terho Lahtinen, Senior Manager, Future Concepts, Suunto

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Time to innovate

As Internet of Things technology becomes ever more prominent in our daily lives, companies are on the lookout for ways to enhance their products with smart sensors and wearable devices. Yet, for many companies and developers, the high cost and specialist resources required to create proprietary sensor technology can be prohibitive—limiting their ability to take a driving seat in the IoT revolution.

Suunto, a world-renowned producer of sports watches, instruments and dive computers, launched a mission to help more people harness the power of IoT technology.

Terho Lahtinen, Senior Manager, Future Concepts at Suunto elaborates: "To help with the design of new Suunto sports tracking products, we developed a micro sensor capable of measuring any movement that can be made by the human body. Over the course of this project, we soon came to realize that our sensor was suited for many more purposes and could appeal to a much broader audience. To put it into perspective, there are approximately 8,000 sports in the world, and our sensor could help players of each of these sports take training and performance to the next level. What's more, our sensor technology could also be successfully applied to use cases across industry.

"We saw an opportunity to open up our sensor technology to a wider community of companies, developers, and individual enthusiasts and build new partnerships dedicated to curating next generation IoT-enabled applications. For this idea to work, it was essential that we invested in cloud technology that could enable us to host and support a versatile open developer environment."

Strengthening resources

Working with IBM Business Partner Symbio, Suunto created an open, online developer kit to facilitate use of Movesense with IBM Cloud solutions. It is designed to help novices and experts explore and experiment with Suunto's sensor data in an IBM environment. Symbio was a key partner during the development of the Movesense platform. In the process, the company built up extensive experience working with companies in the industrial and healthcare as sport industries to enhance their products with Movesense technology and IBM Cloud solutions, helping them to create new business models.

"When we compared IBM Cloud solutions to competitor offerings, the IBM technology had many benefits for developers," says Terho Lahtinen. "For instance, with IBM solutions we can easily integrate analytics capabilities with the Movesense API

interface, developer tools and software libraries—enabling us to rapidly accelerate time-to-market for companies using Movesense.

"We were also greatly impressed by the scalability of the IBM Cloud solution and integrated analytics functions. The high degree of flexibility that this provides equips our team with the tools to build a platform that suits the needs of a broad user base. From expert development teams in large companies looking for detailed analytics capabilities and programming functions, to individual hobbyists and enthusiasts who enjoy building applications with intuitive interfaces—IBM technology helps us to reach out to all, no matter what level of technical knowledge and expertise they may have."

Movesense brings together Node-RED, Xcode, Android and iOS code libraries as well as Suunto's own development software in an IBM Cloud environment, enabling users to start experimenting and developing with ease.

Terho Lahtinen continues: "Working with IBM and Symbio on this project has been a great experience; both partners offered fantastic support throughout the development process, taking the time to truly understand our goals. IBM have shown great enthusiasm for Movesense too, with developers at the IBM Watson Health™ Centre in Finland experimenting with our sensor

themselves. This high degree of engagement with our product makes working with IBM a truly exciting experience."

Partnerships committed to innovation

Since launching Movesense, Suunto and its parent company Amer Sports are reaping the rewards of accelerated innovation, accessing new markets while cultivating partnerships committed to elevating consumer experiences.

"At present, we already have around 400 developers working with the Movesense developer kit and applying our sensor technology to a range of use cases," explains Terho Lahtinen. "We were surprised to see just how many developers were quick to engage with the Movesense platform, and with each engagement we are establishing new value networks and gaining access to markets outside our field of expertise. With an open development environment powered by IBM solutions, we can branch out to different business areas and create new, lucrative revenue streams.

"For partners and developers, building applications with Movesense in an IBM Cloud environment opens up a host of possibilities. With Movesense our partners can experiment and create wearable, IoT

solutions without having to spend a significant amount time and resources building their own smart-sensor hardware or development environment. Already, this has enabled developers in our ecosystem to kickstart a wide range of fascinating projects."

Working with the IBM Watson Health Centre in Finland, Ain1, creates mobile platform solutions for human performance measurement utilizing Movesense and IBM AI technology. The solution enables trainers and healthcare professionals to gather detailed data on the mobility of an athlete, for example after injury, so they can monitor how the injury responds to different types of therapeutic exercises.

Ain1's first product (not yet cleared for sale) measures balance. A patient or an athlete completes a set of

movements or exercises while wearing the sensor, which captures precise measurements previously unavailable to healthcare professionals or coaches. With the data, progress can be monitored and documented accurately and objectively.

In future, Ain1 could even help the managers of team sports identify if a player is suffering concussion during a game. This is achieved by comparing an athlete's real-time balance against the baseline measurement of an athlete's normal sway, helping to identify injury faster and intervene with greater precision. With the big data of different balance scores collected with support from IBM and AI technology, the performance data can be clustered and used as standards for normal balance. Looking forward, Ain1's future products could help with

prognosis and assessments of human condition, contributing to decision-making around people's capability to work or early detection of neurological diseases, for instance.

Terho Lahtinen concludes: "Consumers are the real winners of the Movesense development platform. Our partner ecosystem is adding value to a really wide consumer base, providing them with innovative ways to apply motion sensor technology to various aspects of daily life. If product development continues at its current pace, the future of Movesense looks very bright for Suunto, our business partners and consumers."

Solution components

- IBM® Cloud™
- Symbio

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