

Karantis360

Harnessing leading-edge technology to transform senior care
With life expectancy increasing and families dispersing more widely, care of the elderly is a growing challenge. In response, Karantis360 developed solutions that combine sensors, machine learning, analytics and cloud technology to enhance the quality, transparency and accountability of care, helping individuals live independently for longer.

Business challenge

Many elderly people want to live independently but need assistance to stay safe. Karantis360 saw an opportunity to empower care-givers to use their time more effectively and keep families informed.

Transformation

Hosted in the IBM® Cloud™, Karantis360 solutions unobtrusively monitor clients, identify unusual behavior and alert care services, enabling care givers to provide exceptional service and simplifying information sharing.

Transformation

Transformation safe, independent living for happier, healthier cared-for individuals	Secures sensitive data and provides the flexibility required for use on multiple devices	Scales to meet increasing demand in multiple countries, supporting growth of Karantis360
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Transformation

Looking out for the older generation

Across the globe, people are **living longer**. With over-stretched social care resources, we must work out how to care for more elderly people. Families may live too far away or have too many commitments to support individuals directly. In situations like these, relatives depend on care service providers to ensure that their loved ones stay healthy and safe, and to keep them in the loop about their condition.

UK start-up Karantis360 saw an opportunity to address the many challenges involved in care for the elderly. It sought to introduce greater accountability and efficiency, empowering care givers to work effectively and their clients to live independently.

Tim Payne, Chief Marketing Officer at Karantis360, explains: "Care services are increasingly time-pressured and weighed down by too much administration. In today's mobile and connected world, we thought there should be a better way."

Karantis360 developed a mobile application to support care givers with the information they need to provide excellent service and to connect families with their elderly relatives. However, the company's original choice of cloud services provider could not adequately support the required highly secure usage model – an essential capability in the care sector.

"Care givers often share or use more than one smartphone or tablet, so we needed to have that flexibility," says Payne. "They also deal with very sensitive data that must be secured at all times, so when the log-in functionality offered by our previous cloud services provider wasn't up to scratch, we quickly decided to look elsewhere. Top of our selection criteria were security, scalability and flexibility. We also knew that partnering with a technology leader could help us take our solutions to the next level."

“ The IoT and AI capabilities we’ve gained from IBM allow us to bring something truly new to the market. With Karantis360 solutions, elderly people can live independently for longer. ”

—Tim Payne, Chief Marketing Officer, Karantis 360 Ltd.

Transformation story

Pushing the envelope

Karantis360 teamed up with IBM to migrate its existing mobile application to the **IBM Cloud** platform and to introduce new augmented intelligence (AI) and Internet of Things (IoT) capabilities. "As soon as we engaged with IBM, they gave us excellent advice about rearchitecting and moving our service to the IBM Cloud with minimal disruption," comments Payne. "They also introduced us to a whole network of potential partners."

The IBM team connected the company with IBM Business Partner EnOcean GmbH, an IoT specialist. Karantis360 initially employed self-powered movement, door, pressure, humidity and water sensors from EnOcean to monitor clients unobtrusively, with plans for additional sensors underway.

The data collected from the sensors is aggregated with **IBM Watson IoT™ Platform**, where the company builds a picture of individuals' typical behavior patterns. Using AI models built and trained within **IBM Watson® Studio**, Karantis360 identifies deviations from routine that could indicate that something is wrong. The company delivers information to clients, care givers and family members with permission via a web and mobile dashboard. To securely store client data, Karantis360 chose **IBM Db2®** hosted in the IBM Cloud, connected to the highly scalable **IBM Cloud Object Storage** service.

"The combination of IBM Watson and EnOcean technology allows us to track when clients get up in the morning and go to bed, visit the bathroom, use kitchen facilities or leave the house, while respecting their privacy," says Payne. "We alert care providers to anomalies via the dashboard and push notifications, allowing them to check up on the client by telephone or face to face. For instance, the app enables us to detect if a client has a fall, allowing care providers to send help quickly, which makes a huge difference. Similarly, for clients with Alzheimer's or dementia, we can recognize when they might be putting themselves at risk, so care givers can intervene."

The Karantis360 application includes a profile of each client, including information such as their likes, dislikes and health needs, which helps care givers provide personalized service even when they have a heavy case load or are visiting someone for the first time. Care givers use the application to record information and upload a photograph of the client on each visit, giving trusted family members insight into how their loved ones are doing. Karantis360 infused the solution with powerful real-time speech recognition, so care givers can update records with their hands free to carry out other duties.

“ We’re already seeing huge interest from around the world and teaming up with a global player like IBM is helping gain traction in the industry very fast. ”

—Tim Payne, Chief Marketing Officer, Karantis 360 Ltd.

Transformation story

Pushing the envelope



Karantis360 is disrupting the elder care sector with solutions powered by IBM technology. Enhanced transparency and productivity translates into happier clients and families, and, in turn, enables care providers to strengthen their offering and competitive position.

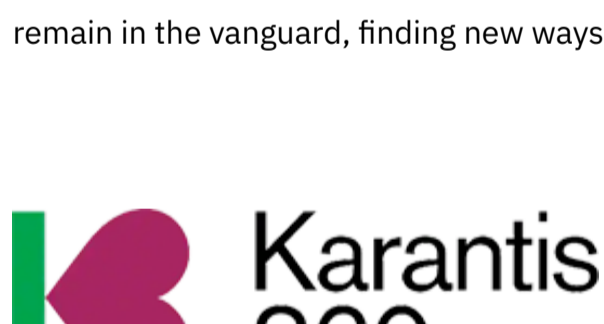
"The IoT and AI capabilities we've gained from IBM allow us to bring something truly new to the market," adds Payne. "With Karantis360 solutions, elderly people can live independently for longer, their families can be confident they're being well looked-after and care givers can provide better service."

Moving to IBM Cloud services gave Karantis360 the flexibility to ensure easy user adoption of the solution, alongside the security to safeguard client data. "Karantis360 wouldn't be a success unless it worked on multiple devices, with support for both i/OS and Android operating systems, which IBM helped us achieve. Data is encrypted from device to the cloud and back again, so care providers and their clients can rest assured that sensitive information is kept secure."

As demand for Karantis360 grows, the company can easily scale up IBM Cloud solutions to support additional users in large numbers. The global reach of the IBM Cloud data center network will be an advantage as Karantis360 enters new markets.

"We're already seeing huge interest from around the world and teaming up with a global player like IBM is helping us gain traction in the industry very fast," says Payne. "With different rules around data storage from country-to-country, IBM's worldwide resources and knowledge in this area will be invaluable as we expand."

With the latest version of Karantis360 making an impact, the company is already looking to the future, eager to remain at the leading edge of the healthcare industry. Payne concludes: "With partners such as IBM and EnOcean, we're confident we can remain in the vanguard, finding new ways to transform processes and build trust in the care system."



About Karantis360

Karantis 360 Ltd. is transforming care through smart technology. It develops and provides solutions that help care givers ensure that individuals are supported and cared for, and that their families are part of the process too. Established in 2017, the company is headquartered in Hook, UK.

Solution components

- [Cloud Object Storage](#)
- [Db2 Hosted](#)
- [IBM Cloud Platform](#)
- [Watson IoT](#)
- [Watson Studio](#)

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