



## News

### Partnership with TTSH opens doors for tech firm

The Straits Times (2 August 2016) - The Singapore International Chamber of Commerce mounts efforts to reward and raise awareness of partnerships between large firms and small and medium-sized enterprises.

One such collaboration was between Tan Tock Seng Hospital and tech start-up 1Rwave, which developed tracking tags to monitor patient movements. The firm's chief executive KuanYeh Cheang tells Jacqueline Woo how it benefited from the initiative.

**Q: What is 1Rwave and how did it come about?**

A: I quit my job with an electronics company at the end of 2011 to set up 1Rwave with a partner because we saw an opportunity in this space. So we started out in 2012 as a company looking into developing low-power wireless solutions – it's really to gear up for the upcoming Internet of Things (IoT) age.



*The challenge for 1Rwave now is to get its location-tracking solution out fast, says Mr Kuan. Now that the firm has a head start with the technology and proven that it works, it has to "take the ball and run with it".*  
**PHOTO: GIN TAY FOR THE STRAITS TIMES**

One of the first few things we started working on was a wireless tracking solution. Advancements in technology have made it possible for us to develop location-tracking solutions at low costs, with longer and more practical battery life.

Of course, location tracking as a concept is not new, but it hasn't really been possible because wireless technology has been expensive, and it runs on very high power while covering a short range. With the onset of IoT, there's an opportunity for us to bring this maturing technology into the market.

For us, it was all about the timing. Any technology will reach a point where it becomes mature and practical and then mass adoption starts.

We saw that point coming for this particular technology and there was demand, but firms were still very hesitant to invest in it. So there was this missing gap in bridging the two aspects together, and that provided the push for us – the realisation that maybe we could play that role.

**Q: How did the collaboration with Tan Tock Seng Hospital (TTSH) happen? What was 1Rwave's role?**

A: In 2013, I was at a seminar where a director from TTSH put out a wish list that included in-patient monitoring. I saw that it was something we could do, so I approached Spring Singapore to introduce us to the hospital.

We gathered a few partners to support us in making a proposal, got some funding from Spring and, later, TTSH agreed to do a trial with us for their geriatric medicine department, where they treat elderly people with special needs.

They needed to track the geriatric patients as some have dementia and sometimes would wander off to another part of the hospital and not know how to return to the clinic. We started the trial with TTSH at the end of 2014, with the capability to deploy up to 100 tracking tags which were given out to patients as they came in for their treatment, and it went on for six months.

**LEVERAGING ON BIGGER PLAYERS**

As a small start-up, we don't have the reach or resources to go after too many markets at one go, but leveraging on these bigger players can help."

- 1RWAVE CHIEF EXECUTIVE KUAN YEH CHEANG

**Q: What were some of the biggest takeaways from working closely with a larger company?**

A: For us, the trial with TTSH was a very successful one. We knew our solution could work, but we wanted to really test it in a real-world hospital environment, and we found that it worked very well. We learnt a lot from the experience – things like how to engage a hospital, the constraints in deploying our tags, resolving some of the painpoints, and dealing with patient data and privacy.

With that trial as a reference case, we were later able to clinch a deal with Siriraj Hospital in Bangkok, the largest hospital in Thailand and South-east Asia. Siriraj Hospital knew we had been deployed at TTSH, so a lot of trust and credibility from the trial really helped.

You can imagine, if we didn't have that first trial with TTSH, Siriraj wouldn't have known whether our solution was really viable and would probably have been quite hesitant to take us on. So that was a very nice break for us.

We completed the deployment with Siriraj Hospital in October last year and currently track the area for its accident and emergency ward, as well as some surrounding areas.

**Q: What are 1Rwave's plans for growth?**

A: We definitely want to grow within the Singapore market. There are two sectors, in particular, where our business can be relevant – healthcare and logistics (though the latter is meant in a very broad sense), because we're talking about personnel tracking and asset tracking.

As long as you have moving goods and moving people that you need to track and monitor in real time, then our solution will fit quite well. One customer, for example, is using our technology to track his art pieces.

Our largest deployment to date is at a marine base in Tuas, where the firm is tracking its workers. It's not fully completed yet but we're quite close to the end. Safety was the main driver behind this, because in such locations, the firm has to be fully accountable for all workers' safety.

We are also looking for system integrator partners in Singapore, especially those with worldwide channels, as they can take our solutions abroad. As a small start-up, we don't have the reach or resources to go after too many markets at one go, but leveraging on these bigger players can help.

We also want to push into more regional markets. For Thailand, we're using the strong reference case in Siriraj to push our solutions into more hospitals and even non-healthcare sectors. Already, we've seen strong interest from quite a few companies. We are also looking at other markets, such as Indonesia, Malaysia and Vietnam.

The challenge for us now is really to get the solution out fast. Now that we have a head start with this technology and we've already proven that the solution works with a few key customers, we really have to take the ball and run with it.

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