

# NETWORK BUILDERS

Whilst working at Nanyang Technology University, Lee Chyan and his fellow researchers formed the company RFNet, with the sole purpose of commercialising on the recently standardised Wireless LAN technology. However, competition from abroad forced them to rethink their business strategy, and the team began taking the company in a new direction.

## MR. LEE CHYAN (DERIC)

MANAGING DIRECTOR (CO-FOUNDER) RFNet

In 1999, the Wi-Fi Alliance for WLAN (Wireless local areas technology) was formed as a trade association, to hold the Wi-Fi trademark under which most products would then be sold. Lee Chyan (also known as Deric) immediately saw an opportunity to grow a business and the following year, along with a group of fellow researchers at Nanyang Technology University (NTU), began creating working WLAN products. RFNet was established in 2001 and subsequently spun off from NTU, becoming one of the first companies in Singapore to start manufacturing Wireless LAN Products.

Providing a complete ODM (Original Design Manufacturer) service, which included everything from product design, component sourcing, design and manufacturing, testing, and then product certifications and assembly, RFNet created a host of wireless and communication related technologies. As Deric explained, it was the perfect start-up business for

him and his associates.

“When an OEM (Original Equipment Manufacturer) customer came to us with a request, we had all the technology modules ready to select straight off the shelf. Based on their product specifications, we would piece together our existing technologies and design and build the combination they required.”

However, things quickly took a downturn when, in the mid-2000s, other companies began to enter the market. China’s ODM companies aggressively competed in the region, and this subsequently resulted in a significant drop in business margins for companies in that sector. Deric and his team knew they needed to make a change if they were to survive.

“We decided to transform our business focus to provide technological turnkey solutions and customised services for System Integrators, with a focus on government projects. We started to create technology that would help customers automate or improve their busi- →





of their technology have been continuously enhanced over the years, as the systems have had time to be perfected.

Some of the varied platform solutions RFNet have been involved in include:

1. Fixed wireless for point-to-point and point-to-multipoint (up to 60 km). Typically, people use this for wireless backhaul solutions or backup links.
2. Wireless infrastructure coverage solutions for bus depots, train depots, schools and warehouses.
3. IT security solutions for enhanced network security with server hardening, Firewall, SIEM (Security Incident and Events Management) and wired and wireless intrusion detection.
4. CCTV surveillance for in-vehicle surveillance with GPS tracking – mostly used in the railway market.
5. CCTV surveillance for intelligent transport systems and shopping mall video (crowd) analytics.

In 2015, Japanese electronics giant Panasonic decided to invest in RFNet, becoming the controlling shareholder. This partnership opened even more opportunities and RFNet has since been able to pool a host of technologies together, a great deal from Panasonic itself, and offer even more solutions to companies.

Never one to sit still, Deric is keen to continue on this upward curve and has big plans for the company over the next few years. “Currently our business is based mainly in Singapore, but we have exported our solutions, especially in the wireless solution sector, to South Asia, Japan and some European countries, and I would really like to increase this expansion into the European market. In the past we designed and tested products, whereas now we design and test systems. When you design these systems, especially for a foreign market, it requires a more knowledge-based partner to interact with. We need to address how we interact with and educate our overseas partners so that they not only understand our technology but can also capitalise on our designs.”

RFNet has managed to place itself in a prime position to provide a first-class, award-winning service but, like many companies, they still rely heavily on their suppliers, as Deric is keen to point out.

ness operation and communication needs.”

This decision turned out to be a wise move. Within just a couple of years the financial crises hit and, luckily, thanks to government projects not being badly affected, RFNet managed to come through the turmoil stronger than ever.

RFNet has gone from strength to strength since then and has branched out into the private sector as well as continuing the government work.

“As we started out as a manufacturer, we are equipped with the mindset and expertise to conduct detailed system requirement testing before introducing the products to our partners,” explains Deric. “This helps the system

integrator partner to minimise technical risk and reduce the time to launch to market – all saving on costs.”

RFNet has also found that, as their platform solutions are used repeatedly by many different projects, the quality, stability and features

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“We have a culture where we treat our key suppliers as partners. We have around 15 key suppliers, and we explain to them what our plans are, and then we work together, in order to grow together. For example, if we are working on new technology, we will share this with them and make sure they can both keep pace with us, as well as learn alongside us. We also try to work with the originator of the technology as our main source. This way we hope to avoid any middlemen, in order to ensure our solution is as cost-effective as possible.”

The team at RFNet have expertly managed to mould their business in order to maintain momentum. It is only by constantly monitoring their market, their customers, and ultimately themselves that this success has continued.

Deric and his associates have an eye for detail and, just like the products they produce, everything comes down to efficiency, innovation and reliability, and it is these components that remain at the core of the RFNet family. 🚀



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