

## Application Case:

### *Taiwan Telco Uses Raritan SRC to Enhance Monitoring of New 5G Cell Sites*

*Leading service provider partners Raritan for large-scale 5G expansion*



Ultrafast speed, super-low latency, high capacity, seamless connectivity, enhanced support for IoT devices. These are some of the benefits that 5G technology offers. Not surprisingly, the global 5G services market size is growing very quickly. Valued at US\$60.61 billion in 2022, it is projected to expand at a CAGR of 59.4% from 2023 to 2030. Asia Pacific led the market in 2022 with a share of more than 40% and the region is estimated to grow at the fastest rate during the forecast period.

To meet pent-up demand from both enterprises and end-consumers, service providers have been rolling out or expanding 5G infrastructure across the world. Things are especially hectic in Asia Pacific, which is on track to become the largest 5G market globally. That comes as no surprise as South Korea, China and Australia were among the first in the world to launch commercial 5G networks.

#### **Wanted: Better Environmental Monitoring**

The technologies that comprise 5G infrastructure are very complicated. This complexity extends to the cell site level so the monitoring of cell site assets and the environment within which they operate has to be very rigorous in order for operators to deliver consistent and uninterrupted service. However, while current, voltage, temperature, humidity, smoke, air pressure and other parameters can be monitored using sensors, unifying sensor outputs and turning them into meaningful and actionable information can be a challenge.

A major telecom service provider in Taiwan found itself facing this tricky situation when it was scoping out the initial phase of its expansion plan for its 5G network; the phase would see the addition of 100 cell sites by the end of this year. The company had been using a custom-made gateway as a hub for environmental sensors in each of its cell sites; the data was sent onward to a SCADA system via Ethernet. This piece of hardware, though, did not have intelligent features and had limited alerting capability. It also could not store sensor data, making it difficult for the company to identify particular cell site assets that were not performing to specs and causing environmental parameters to go off-range.

## Raritan SRC Best Solution

Realising that the capability to easily archive and retrieve sensor data could improve day-to-day operations of its 100 new 5G cell sites, the company went about evaluating environment monitoring solutions. It came up with a shortlist of three solutions. The 5G provider eventually chose to deploy a Raritan Smart Rack Controller (SRC) as it was the only one of the three that could support third-party sensors.

Most importantly, unlike the other two candidates, the Raritan solution is capable of logging events and data from the sensors in internal storage and a USB flash drive over a 14-day period. This data is automatically backed up when the Ethernet connection is broken for some reason and retrieved when it is restored. Speed and ease of deployment were also factors in the choice of the Raritan SRC – other than the power cable, there are only two cable connections: one to the custom-made sensor gateway, the other to the Ethernet.

## Clear Benefits

Since it was deployed at the 100 new 5G cell sites, the Raritan SRC has made it possible for the provider to: readily view sensor data and asset status, receive alerts to out-of-range parameters, use data logged over the past 14 days to spot trends in parameters, analyse the performance of particular assets, etc. Other than improved monitoring and analysis, there have also been fewer visits by technical staff to the cell sites.

Having realized clear benefits from the use of the Raritan SRC, the provider plans to extend its use to several thousand new 5G cell sites that it will be deploying across Taiwan over the next 3-5 years.

**Ready to find out more? Contact Raritan today.  
Call **+65 6817 9017** or visit [www.raritan.com/ap](http://www.raritan.com/ap)**

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