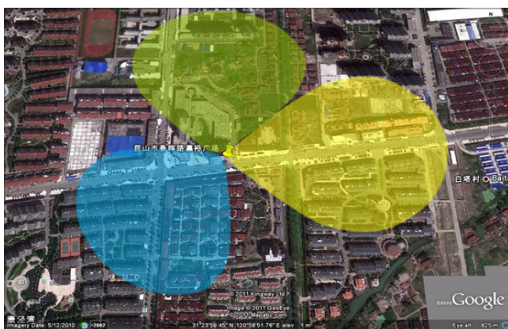


## Altai A8-Ei Co-located with 3G Cell Sites to Provide Full Coverage in a New Town of China

Located in the city of Kunshan of Jiangsu Province, China, the Jia Yu Plaza and its surrounding areas are developed as a new community for both business and residential use. To cope with the increasing demand on mobile internet, Suzhou Mobile has already installed three TD-SCDMA base stations on the rooftop of the Jia Yu Plaza, an 18-storey building, to provide mobile data service to its subscribers. However, the return on investment is not as good as expected due to the low usage rate.

In order to improve the data usage rate, Suzhou Mobile had a plan to build another wireless network using an unlicensed band to provide more reliable and high speed data services. Altai outperformed all other WiFi equipment vendors using its Super WiFi technologies and became the technology partner of Jiangsu Mobile.

Based on the project requirements, the new network will provide 360-degree full coverage. The deployment requires Altai base stations to be co-located with the TD-SCDMA sites and to be highly scalability for future expansion.



Installed on the rooftop of the Jia Yu Plaza, Altai A8-Ei base stations shared the same sites with the existing TD-SCDMA base stations and therefore save most of the site acquisition costs, wired backhaul costs and radio planning works. Staying at the forefront of wireless industry, the A8-Ei has also adopted advanced wireless technology to minimize the interference from other base stations at the same site.

In this densely urban environment, the Altai A8-Ei provides 650m of line-of-sight signal coverage where iPhones and smartphones can direct connect to the base station with fast uplink (5.6Mbps) and downlink (6.5Mbps) WiFi performance. The special design of A8-Ei made it an ideal solution for 3G operators to quickly build a wireless broadband network with wide coverage at a much lower total project cost.

### Problems & Challenges:

- To provide signal coverage on the entire large, high density area
- The Altai base station must be co-located with existing cell sites
- Minimize the interference to and from TD-SCDMA base stations
- High user capacity and high scalability to cope with the increasing demand on data usage

### Solutions:

- Utilizing patented smart antenna and interference mitigation technology as well as data flow control algorithm, A8-Ei is able to minimize the interference from other signal broadcasting equipment to provide superior performance
- 3 x A8-Ei base station were installed in the initial phase, one unit of A8-Ei can support over 80 concurrent users