

TV white spaces beneficiary profile:
Singapore Island Country Club, Singapore
Singapore White Spaces Pilot Group

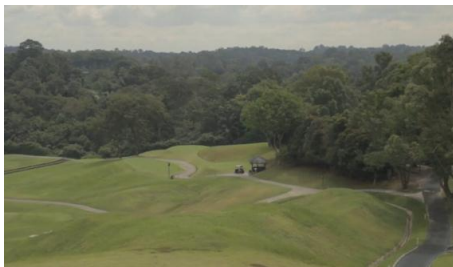


Singapore Island Country Club (SICC) is the oldest and most well established country club in Singapore sitting on 266 hectares of rolling hills, a lake, trees and rich vegetation. Opened in 1891, the SICC was the first club to host the Singapore Open Championship. Today, the club is the first golf course in the world to make a next generation broadband wireless Internet connection available on the course. The new broadband connection uses TV white spaces, unused spectrum traditionally used to carry television channels, to optimize the connectivity and, in the future, deploy smart sensors. In turn, players have Internet coverage across the varied terrain of the course, and the wireless system will allow for smarter and cheaper maintenance of the facilities. SICC management hopes to use 'super Wi-Fi,' which penetrates through the golf course's obstructing terrain, to track golf buggies, monitor garbage bin capacity and water grass with remote sensors.



TV White Spaces Commercial Pilot in Singapore

Leading the initiative are Neul, Terabit Networks, and Microsoft, members of the Singapore White Spaces Pilot Group, a group established with the support of Singapore's regulator, Infocomm Development Authority. The organization is promoting Singapore as a leading test-bed and innovative zone for conducting pilot projects using white spaces technologies, with the goal of pushing white spaces technology adoption locally, regionally and globally. Being the first golf club in the world to use white spaces technologies, the SICC sees itself as helping to set the pace for technology innovation in the golf club industry.



TV White Spaces Commercial Pilot in Singapore

White spaces technologies are making machines smarter by allowing different units to communicate with each other. Beyond providing fast and reliable Internet for SICC members, white spaces technologies could change the way the course is managed. Connected sensors would allow management to be more informed and responsive to changes in the facility. Instead of a worker needing to check garbage cans on a schedule, a sensor could signal when one needs service, thus letting the worker attend to

other matters. Unlike prior options that required expensive investments to connect sensors, several inexpensive base stations would allow SICC to fully cover its entire facility.

Wireless communication between devices on the golf course would allow business to run more efficiently for SICC, which could ultimately make for an even better customer service experience for everyone using the course. As wireless connectivity between devices grows in the golf industry, it will be paralleled by similar advances in other sectors.