Lights Pole Controlled in Southeast Asia Turf

Application Unit	Lights Pole Controlled
Location	Southeast Asia Truf
Application Product Model	Atop SW5001+SE5002

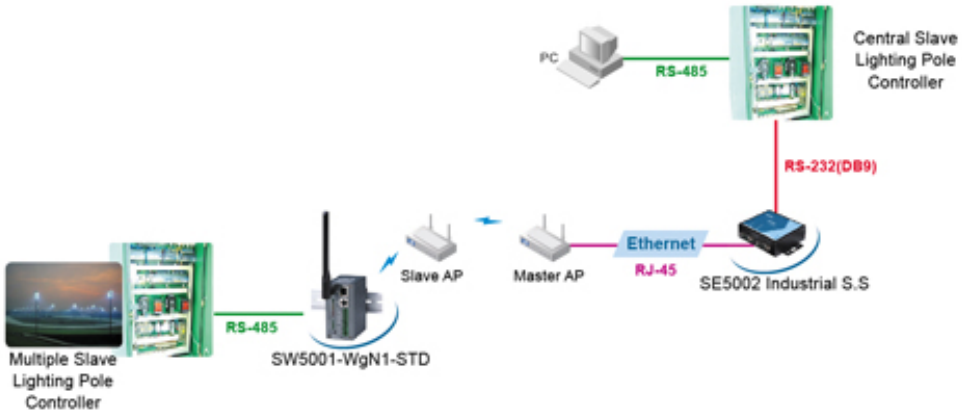
Case Overview

All the lighting poles are controlled by the PC sitting on the Grandstand of Turf, to control the lighting so that the lights are gradually on/off to avoid scaring horses and to use for special lighting effect controls. Each lighting pole is equipped with a slave controller, which is linked to the central controller (at the Grandstand) via RS-485. Atop comes in the picture as a transparent bridge between the central controller and the slave controllers.

Appliation Requirements

1. Due to the long distance and presence of the race track, a combination of wireless & wired solution was introduced to bridge among the slave lighting pole controllers, the central controller and the PC.
2. A wireless solution is needed to cover all lighting poles on the field to avoid cable installation.
3. A wired solution can be used in the main building.

System Topology



What were done by Atop

1. SW5001, Atop's wireless serial server, was selected for wireless communication between slave lighting controller and the central lighting controller.
2. After installation, SW5001 has been proven of its high reliability under long-time operation.
3. SE5002, Atop's wired serial server, was selected to convert serial RS-232 interface to Ethernet interface in the cost-effective way.
4. Atop provided a platform with programmable software development kit (SDK) and API. This allows the customer to integrate VirtualCom with inverters to monitor the power remotely and automatically.
5. Atop assisted SI to improve wireless infrastructure of filed site by re-arranging the antennas of access points.

Key success factors

1. Both SW5001 and SE5002 have been proven as a reliable and cost-effective solution.
2. SW5001 acts as a bridge between multiple slave lighting pole controller and slave access point(AP). It allows users to achieve real-time remote monitoring via wireless LAN and serial interface connection to cover all lighting poles on the field.
3. SE5002 acts as a bridge between the central slave lighting pole controller and master access point. It allows users to achieve real-time remote monitoring via Ethernet and serial interface connection in the main building.
4. Atop closely worked with SI for trouble-shooting.