Embedded Computers for Campus Traffic Control System Using Solar Power

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Location / Country : Belgium

Product Solutions:
V468

x86-based computers with 4 serial ports, quad LANs, VGA, 8 DI, 8 DO, CompactFlash, USB

Introduction

Project Introduction

A school in Belgium wanted to implement a central traffic control system to provide a safe campus environment for their students. In addition, the entire system had to be solar powered. The plan was to set speed limit displays in the surrounding area and for peak hours, from 7 am to 10 am and 3 pm to 6 pm, the speed limit would be adjusted to 30 km/hr. Moxa's embedded computers are used as central controllers to manage the entire system.

System Requirements

- Built-in web server for real-time control and remote monitoring
- Front-end communication computers for logging and data processing
- VGA display
- Easy development for system integration
- Built-in DI/O to monitor and control the speed limit and text displays

Moxa Solution

Each traffic sign uses Moxa's V468 as a central controller to manage the entire system. The V468 consumes 9 to 36 VDC, from solar power. A GPRS modem and a serial interface time controller?are connected to the V468 for real-time access and precise time mapping. A DI/O device monitors and controls DI/O data such as the speed limit and text sent to the end devices. Electronic panels display the speed limit and text through the VGA interface.

Solution Diagram

Why Moxa

- Multiple connection options for greater versatility
- Moxa's ready-to-run platform allows greater flexibility and provides multi-level open data transmission, and stability for easy integration with third-party devices
- Pre-installed operating system with real-time platform for quick system response
- Built-in web server for remote monitoring
- CompactFlash slot for data logging and storage expansion
- Serial interface for wireless connectivity
- Entire system can be solar powered