

**Train station remote supervision system  
Intelligent Transportation System  
Italy*****Project Introduction:***

The task of the project is to provide to the remote control room the real-time information about the station, and locally record the important parameters while operating. With the help of the supervision system, a dedicated managing team can have an overview of the whole lines status and handle the simple failure eliminating with higher efficiency. The supervision system is empowered by Advantech eAutomation products.

***System Requirements:***

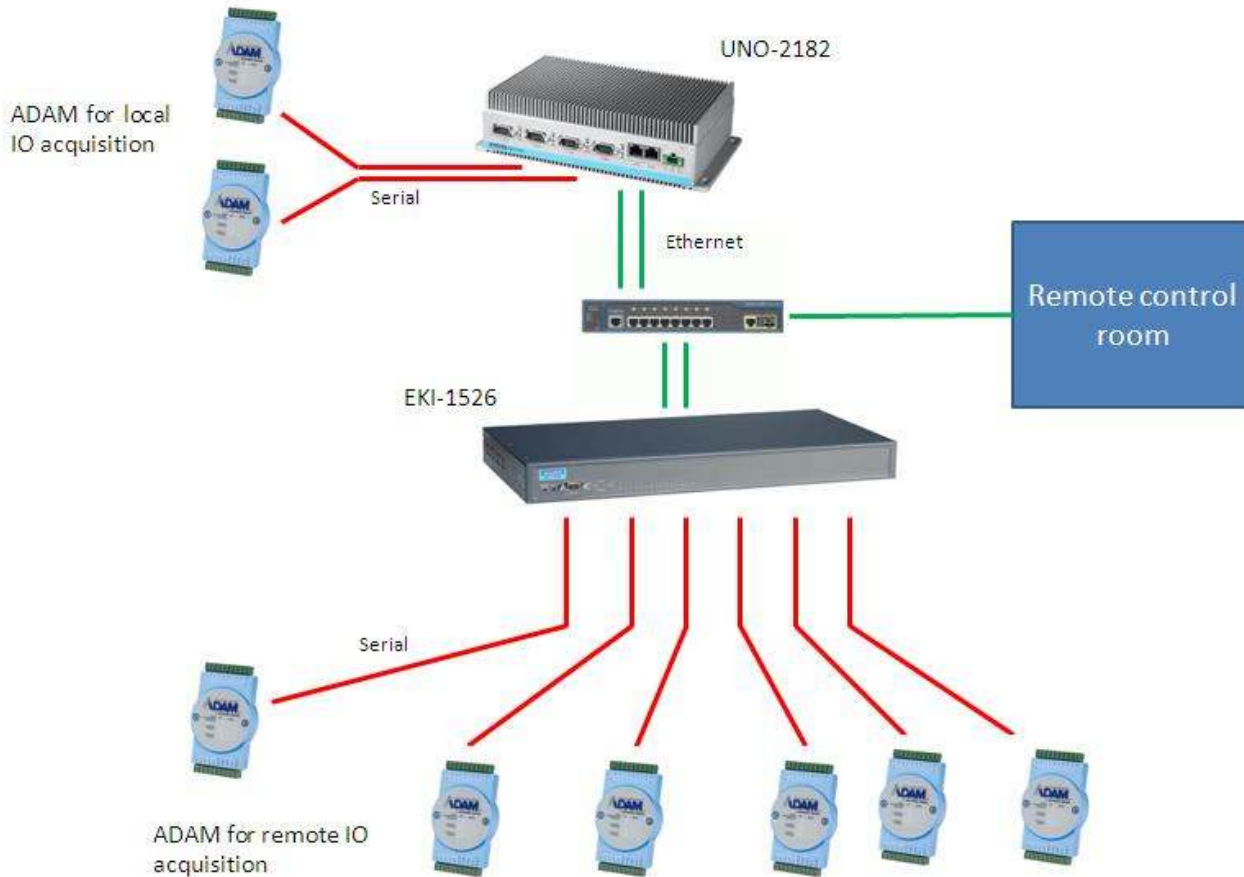
The customer required a reliable control system, which led to the following requirements:

- System full redundancy.
- Fanless, compact size and reliable platform.
- Battery backup RAM to avoid data loss in case of power fault.
- Capability to store large amount of data locally.
- Dozens of high speed RS-485 communication ports for monitoring facilities on a train.
- Flexible IO selection to adapt to the various scenarios.

***Project Implementation:***

- **EKI-1526**
- **UNO-2182**
- **ADAM-4000 family**

**System Diagram:**



**System Description:**

In a train station, every system component requires high reliability. Advantech's Industrial Grade products can fulfill customer's need. This application takes the advantage of UNO-2182 features, such as fanless, compact size and computation power. Connecting EKI-1526 and using VCOM features allows the UNO to add 16 COM ports (completely transparent to the application installed). To each EKI ports can be connected different ADAM-4000 devices: every kind of measure can be acquired using the ADAM with space saving and the information are brought with a fast RS-485 communication right to the UNO. Furthermore onboard RS-485 COM ports can be used to acquire signals locally saving wiring cost.

UNO-2182 with Intel Core 2 Duo processor can acquire all the data and process them in a fast and secure way so that even if the remote control room is unreachable it is possible to manage all the I/O.

Advantech eAutomation provides the complete solution to fulfill customer demands .

The redundancy requirement is completely fulfill by Advantech devices in fact both the UNO-2182 and EKI-1526 can rely on a teaming network connection assuring the system operability in case of cable issue.

**Conclusion:**

To be a total solution provider in the automation field, Advantech knows the requirements of ITS (Intelligent Transportation System) vertical market and dedicate to provide the best-fit products. Our Industrial communication switches and UNO-2100's compact size, fanless design product family are the best choice to be the heart of ITS system. It can also be integrated with ADAM-4000/5000 series controller and devices with high efficiency. By the collaboration with the HMI, the system can also provide the user-friendly interface to the user. Besides what has mentioned, the most important things of winning this project are the products reliability and the strong cooperation with system integration we provided.