

Case Study:



# Incheon, Korea

3rd Runway Project 2008



**MITAS**

**Automatic Weather Observation System**





*The MTECH 5000-200-D R5 Transmissometer Sensor in operation supplying CAT-3B operational data to on runway III at Incheon International.*

### **AWOS System Design**

The MITAS AWOS system installed at Incheon International was customized to meet the local environment and the needs of the customer. The sensor devices were to be installed into a marine environment and needed to be protected against exposure to high levels of moisture and salt.

The system design included dual hot standby Fujitsu Primepower servers running the Solaris 10 Unix operating system, two maintenance workstations and MET sites at the threshold at each end of the runway.

### **Aviation Weather Sensors**

The 8200-CHS ceilometer was installed at either end of the runway providing cloud height and amount data.

The MTECH 5000 series RVR and Background Luminance sensors specified for Incheon are high MTBF devices. The system interfaces with the airports runway lighting system to allow real-time compensation for the effects of the lights on RVR readings.

The 911-UWS Ultrasonic series wind sensors have no moving parts and are heated in the most demanding locations.



*Impressive futuristic airport Interior.*



*Spectacular architecture greets passengers on arrival.*



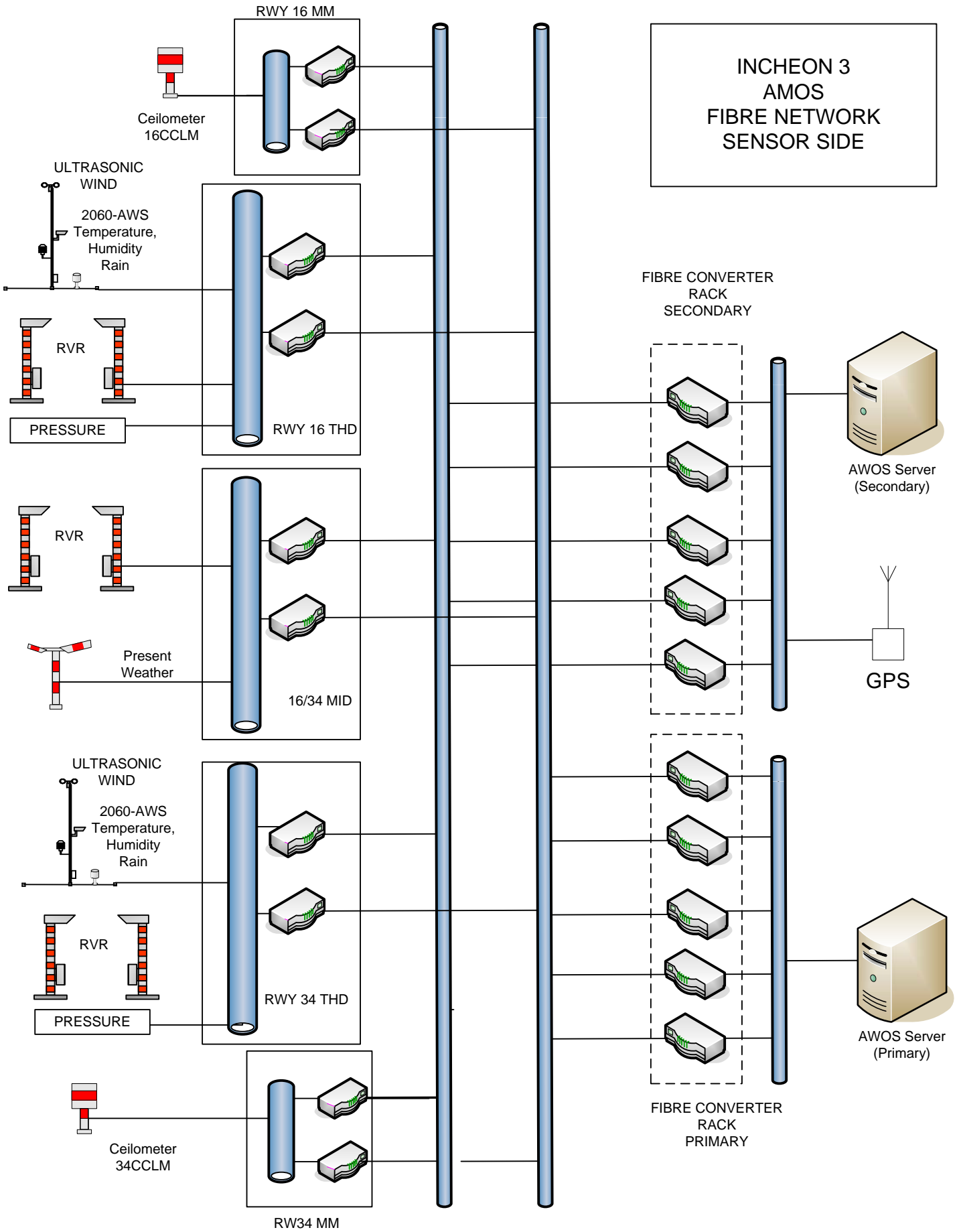
*Glass walled shopping promenade.*

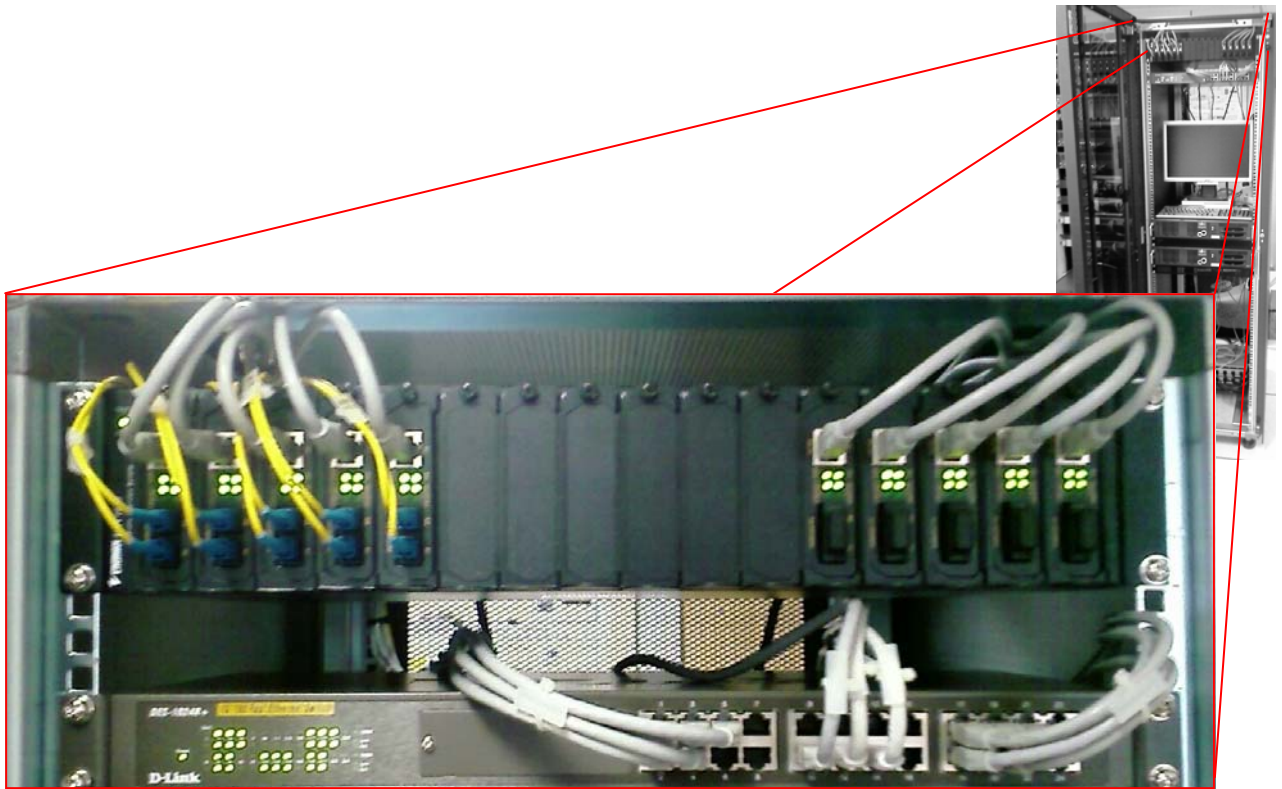
### **Digital Communications**

High speed, high bandwidth fiber digital communications were installed to provide high QOS in the connection between the weather sensor sites and the central building.

### **Central Data Processing and Server**

All weather data generated by the AWOS at Incheon airport is collected, processed, communicated and stored by the central IWHU server. This high specification server communicates high quality real-time weather data to all workstations.



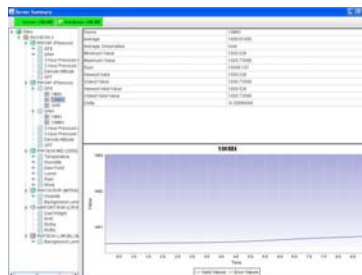


Dual redundant fiber communication rings and dual redundant AWOS servers ensure continuous operation of the AWOS system.

### Rapid Deployment

Due to the tight timeframes required by the project deadline the project management team requested for rapid delivery and deployment of the system.

MTECH met the challenge. All equipment was pre-wired and tested in the factory. Civil works were pre-prepared by the customer prior to MTECH engineers arriving on site. This allowed for the system to be installed in the quickest time possible. The system was deployed and



Screenshot of the MITAS Java Server in operation.

passed SAT to allow the flight testing to begin on the runway.

### System SAT & Completion

After extensive testing of the sensors, software, network and inter-system interconnects to 3rd party systems the SAT was successfully conducted. The MTECH AWOS system was installed on time and met the project management teams time-lines for the completion of the Incheon International Airport 3rd runway project.

For further information please contact:

**MTECH Systems Pty Ltd**  
 15 Kevlar Close, Braeside, Australia, 3195  
 Ph: +61 39588 2829  
[sales@mtechsystems.com](mailto:sales@mtechsystems.com)  
<http://www.mtechsystems.com>