

Reference Projects of Setrix GmbH

M2M Projects with Setrix gateways

Aviation

Wireless Aircraft-Engine Diagnostic Systems — Continuous Monitoring of Aircraft Engines

A leading manufacturer of aircraft engines is using Setrix communications systems to collect engine data worldwide so that it can perform diagnostics and improve its products and product maintenance.

To this end a Setrix communications module is installed in the aircraft cabin and linked to the aircraft engines. This Setrix module collates diagnostic data during the flight and after landing the engine performance data is automatically transmitted to the engine manufacturer's headquarters. In this way the engine manufacturer always has instant access to all the performance data on its turbines through their entire operating lives. The Setrix diagnostic system embraces local data transmission, remote data transmission, data storage and data backup.

Engine performance analysis is used to improve engine safety, deliver product enhancements, obtain data on the attrition of selected components, extend maintenance intervals and minimize unscheduled maintenance. A key advantage of the Setrix solution is its multi-protocol capability that makes it easy to monitor different types of engines. Turbine maintenance firms can therefore use Setrix systems to service engines from a variety of engine manufacturers.

Setrix also uses the GSM data communications network, via which all aircraft linked to the system can communicate worldwide with the manufacturer's headquarters in a reliable, secure and cost-effective manner.

Setrix also develops special communications hardware for customized requirements of the aviation industry.

Buildings Technology

Communications Host for Energy Billing Data (Heating and Water) in Apartment Buildings

A major maker of radio-based heating and water meters uses the Setrix communications system to automatically transmit consumption data to billing systems. The usage data for individual households is transmitted to transceivers on each floor. These transceivers are locally networked within the building via M-Bus. The Setrix system also lends this network a cost-effective communications gateway to the internet or intranet. Energy usage data is transmitted both securely and cost-effectively in the preferred data format at any time without obtaining access to the apartment. The usage data can be stored for extended periods before transmission to the utility headquarters at pre-selected accounting times.

Advantages: No need for appointments with individual tenants or home owners. Multiple reading of usage data is possible as and when required. Billing firms can automate the charging process. In addition, new information services can be offered to home owners. Households can check their own usage data at any time and take individual measures to change their energy consumption if desired.

Traffic Telematics

ADAC Parkinfo Online

The ADAC ParkInfo System collates throughout Germany real-time data on the occupancy of parking garages in city centers, trade fairs, airports, football stadiums and park-and-ride systems. The data is transmitted to car drivers via internet, smartphones, navigation systems and the telephone inquiry services of the German automobile club ADAC. More than 900 parking garages in all major cities in Germany are networked. Systems in other European countries can also be integrated. Setrix provides the links to parking garages and parking guidance systems and also transmits the data to the ADAC. Due to the flexibility of the system, Setrix gateways can easily be connected to all the parking garage computers. The data is transmitted to the ADAC via the internet. The telematics network can be monitored and actively supervised.

Setrix Solutions

Internet-based Dynamic Parking Guidance Systems

Parking Guidance System of the City of Munich

A technical highlight of the system is the complete internet-based control network: the data from the connected parking garages is transmitted via the internet to a control center where the parking space data is computed using combinational logic. The LCD characters on the signs are controlled by radio via a public mobile radio network. The software of the parking guidance control unit is web-based. The parking guidance system administers 7500 parking spaces in 24 networked parking garages.

Parking Guidance System of the City of Erlangen

The city has commissioned 148 variable and 91 static signs at 136 sites after a construction phase of less than four months. Counting modules were installed at numerous garage entries and exits. A special feature of this type of guidance system is the complete internet-based control network. Data from the linked parking garages and spaces is transmitted via the internet to a control center where the parking places are mathematically calculated. The display characters on the signs are controlled by radio via public mobile radio networks. An internet-based parking guidance control unit with web-based software implements the operations of the different users: City of Erlangen, Siemens, shopping malls and hospitals.

Parking Guidance System of the City of Bad Homburg

The special feature of the dynamic parking guidance system of the City of Bad Homburg is the integration of 9 information boards with variable text displays. During the first phase a total of 6 parking garages were connected and LCDs were installed at 19 sign locations. All operators have access to the server and can individually monitor and supervise their parking garages.

Parking Data Capture and Management System for the operator of **RheinEnergie Stadium in Cologne** with 6,000 outside parking spaces. Special feature: the parking systems are linked via GPRS to an internet-linked control center in the stadium. The software is web-based and offers special functions for parking management of events held in the stadium.

BMW Munich: In-house Parking Guidance System for the parking garage of the IT Center (1400 parking spaces).

Pilot project: Floating Car Data Siemens AG in the Netherlands uses intelligent GPRS gateways from Setrix.

Customer-specific Hardware and Software Solutions

Setrix has been supporting customers for over 10 years with the design, construction and operation of data capture systems in the M2M market. We understand what is expected of cutting-edge, mobile communications systems and web-based server solutions. Our portfolio embraces consulting and services for the development of customer-specific hardware and system software solutions in the field of communications gateways for buildings technology, aviation, healthcare and traffic telematics.

If you are looking for individual solutions for converting your server/client application to a web-based system or should you require customized hardware solutions, we will be glad to advise you and develop a solution on your behalf.

About Setrix

Setrix GmbH is a product specialist for M2M service gateways, mobile data processing and communications technology. The company offers products and services for solutions in the fields of internet and wireless communications. Setrix develops new products incorporating innovative technology for communications in markets for service gateways, energy management and traffic telematics. Setrix was established by Siemens Venture Capital in 1999 and is headquartered in Munich, Germany. The US subsidiary Setrix Inc. is based in Haverhill, Massachusetts.

Mission

Setrix products provide simple and cost-effective solutions for remote communications services in the markets for building technology, traffic telematics and parking space management.