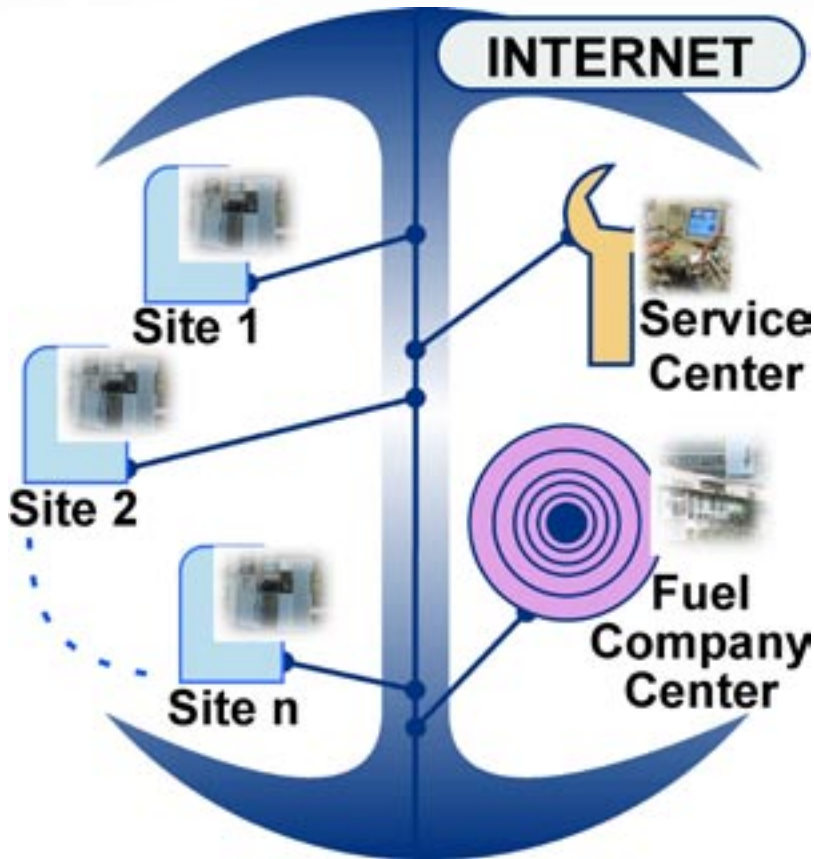


Web-Remote Equipment Monitor of the Site

the software package for the effective site diagnostic



The software package W-REMS (Web – Remote Equipment Monitor of the Site) has been implemented to enable effective remote monitoring of the site equipment.

W-REMS runs on PC installed on the site, and sends the e-mail messages to the pre-defined addresses as soon as it detects the fault of any device.

Fig. 1: Web Remote Monitoring – the Basic Architecture

Saving money for service works and for **minimising of the delays** necessary for fixing the faults is **achieved using W-REMS**. The information sent from W-REMS to service centre **significantly improves the service work effectiveness and time**. The service action can immediately be prepared after receiving the e-mail message information, including all the proper spare parts necessary for fixing of the particular fault type.

W-REMS runs on a PC installed on the site and **monitors continuously the status of the IFSF equipment** installed on the site – dispensers, Tank Gauges, Car Wash, COPT (Customer Operated Payment Terminal), Price Pole, etc.

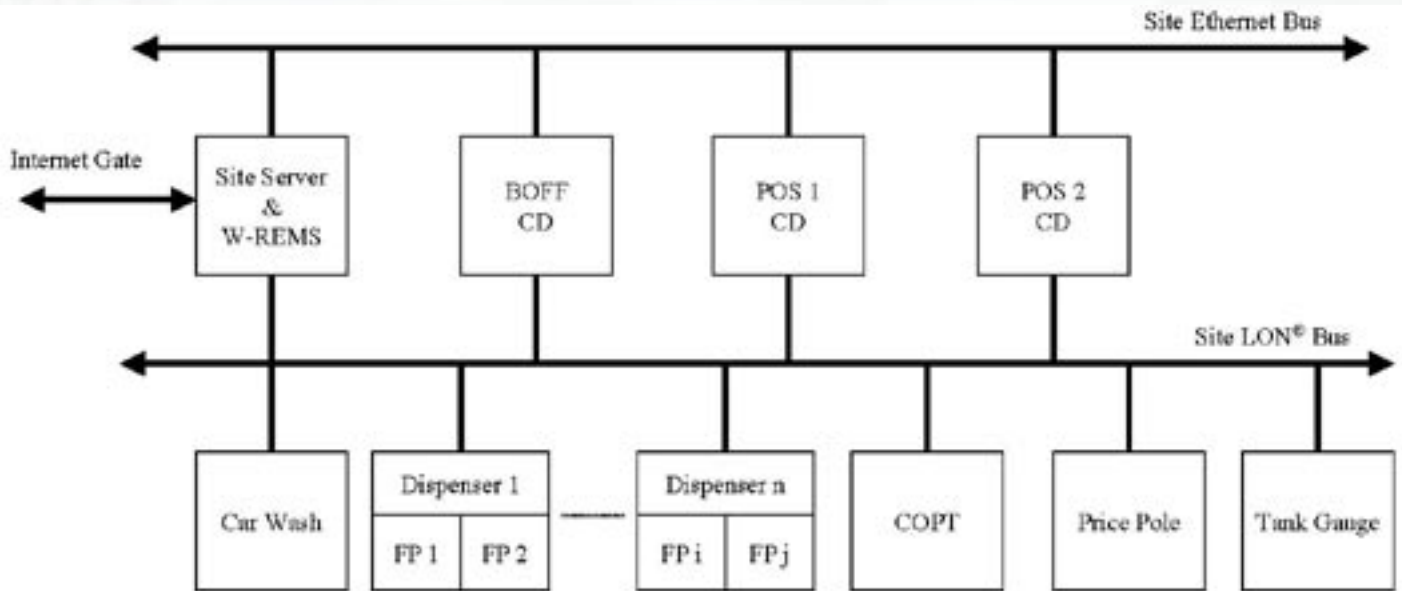
W-REMS **automatically recognises the installed devices**, and stores the Identification Records of the devices to its database. When monitoring the devices W-REMS immediately recognises the non-standard events sent from the devices. As soon as W-REMC recognises non-standard event it stores the item to its device record and sends the information to pre-defined e-mail addresses. W-REMS keeps the **REMC (Remote Equipment Monitoring and Control) part of the IXRetail standard**. The IXRetail REMC standard defines all the data structures using XML. It means the data stored to the W-REMS database and sent to pre-defined e-mail addresses are precisely defined, and **can also be analysed automatically by software**. In general the events of three types have been defined: FAULT, WARNING and/or INFORMATION. The delays for sending the **different type events** can be set in the W-REMS .ini file.

- Control and Point-of-Sale Systems
- Electronic Calculators
- Displays LCD and electromechanical
- Communication Protocol Convertors
- IFSF Standard
- Remote Equipment Monitoring



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CD - IFSF Controller Device controls the IFSF devices

COPT - Customer Operated Payment Terminal

Fig. 2: Site with the W-REMS Installed – the Architecture

IFSF (International Forecourt Standards Forum) standards of the site equipment devices **define also how** the IFSF devices are supposed to **record and send the errors** detected by their self-diagnostic. The IFSF certified devices have to keep the IFSF standards including the way of the recording and sending of the errors. **It enables the possibility to monitor the status** of any IFSF device the standard way, and consequently **to detect the non-correct statuses** of the devices.

Beta Control Ltd. has been the **Technical Associate (TA) of IFSF since March 1997**. We have the great long-term experience in **implementation of the IFSF standards** and control of the IFSF devices. The **ADP type dispenser calculators**, which Beta Control Ltd. Developed, produces and delivers, can optionally **be equipped with the interface according to IFSF-LON or IFSF-TCP/IP standard**. Besides W-REMS package **Beta Control Ltd. can also deliver the IFSF software control modules** (IFSF Controller Device – CD – modules) for different types of the IFSF devices. All the modules can run on PC Windows2000/XP platforms.

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