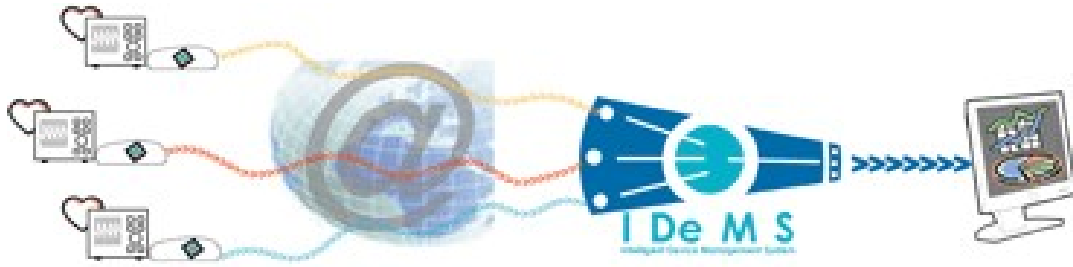


## IDeMS Internet portal

The IDeMS Internet portal enables remote dialogue (TCP/IP) with a set/fleet of remote equipment that are connected via eDevice communication units (eDbox, eDmod, eDgate, etc.). IDeMS works with all the supported physical layers available with eDevice communication solutions (PSTN/POTS, Ethernet LAN, GSM/GPRS, RF 868/915).

IDeMS facilitates the smooth deployment, supervision, and operation of equipment connected to the Internet via eDevice modules.



## Network Services

Due to the scarce availability of public IP addresses, Internet service providers are forced to attribute dynamic session-based IP addresses, which change at every connection, or else charge a high fee for a static IP address. Furthermore, both the lack of public IP addresses and security concerns result in the use of private IP addresses that are not accessible easily from the public Internet, particularly those addresses which are translated by corporate firewalls and routers.

IDeMS standard network services: (1) IP Directory; (2) Proxy-eDconv; and (3) Proxy-Webserver, provide simple and fast solutions to the practical limitations resulting from these issues when your equipment is connected to Ethernet LAN, PSTN/POTS and GSM/GPRS networks.

IDeMS manages the complete process of sending and receiving data during the installation and operation of your equipment. The information collected can be processed, merged, and formatted for visualisation or for transfer to a database of your choice.

For each project, IDeMS can be customized using bricks of software code enabling us to deliver to you a solution that matches specific application requirements.

## Architecture

IDeMS has been built using standards technologies such as UNIX and proven components such as J2EE, Tomcat, and Perl, providing a flexible framework for adaptation to specific requirements.

Scalability: for medium-sized application IDeMS is hosted by eDevice and is accessible

from most standard Internet browsers. For large-scale and important or sensitive deployments IDeMS may be installed and hosted at your premises. Generally, IDeMS is designed to scale from small to large deployments in terms of the number of devices connected and the number of concurrent users accessing the system.

By combining a solution consisting of IDeMS and eDevice M2M connectivity products for PSTN, LAN, GSM/GPRS, or RF, your application will enjoy the benefit of eDevice's many years of experience in implementing connectivity solutions for a multitude of applications.

### **Proxy Web Server**

The Proxy-WebServer IDeMS Network service allows permanently access to an Embedded Web Server that has a private or dynamic IP address.

When connecting to the Internet via LAN or GPRS, the Web server of the eDbox/eDmod is not typically accessible (private IP address).

With the Proxy-Webserver service, you can create personalised Web pages hosted on IDeMS that display values from the field. So long as there is an active IP session, the eDbox/eDmod maintains a TCP connection with IDeMS allowing data acquisition and publication through the secure IDeMS Web server. Only the values are transferred from the eDbox/eDmod to IDeMS, thus reducing communication volume and variable communication costs.

### **eDconv Network Service**

The Proxy-eDconv IDeMS Network service allows permanently access to a Serial Device Server such as the eDconv that has a private or dynamic IP address.

Usually, when connecting over a LAN or GPRS network the IP address attributed is private and not accessible from the public Internet. This would render it impossible to establish a TCP connection remotely to the serial port of your equipment connected to the eDconv.

As soon as the IP session is established, eDconv in turn establishes a permanent TCP connection to IDeMS. IDeMS maintains this connection making it reachable from any PC on the Internet. A password associated to the unique eDconv serial number secures the access through IDeMS.

### **Fleet & Asset Management**

#### **Communication**

IDeMS manages the entire communication chain for a fleet of equipment. The connection schedules and configuration modifications of eDevice eDbox/eDmod units is

programmed through the secure and easy to use IDeMS interface.

IDeMS also manages the primo-configuration which enables you to set the required configuration in field equipment. On the first connection between the field unit and IDeMS, the equipment will download its specific configuration determined by IDeMS according to the equipment's serial number.

Furthermore, IDeMS allows the update of eDbox/eDmod Flash files.

### **Information**

IDeMS manages the remote acquisition of data from variables or files stored in the Flash memory of eDbox/eDmod units in the field. This process can be configured to suit constraints related to specific network use (cheaper night rates, simultaneous connections...)

Either IDeMS or the field units can be programmed to manage the acquisition of such data automatically in accordance with a schedule. The analysis of a specific event received on the eDbox/eDmod serial port can also trigger this upload. The data flow is bi-directional, allowing for example updating information on the remote unit.

### **Visualisation**

IDeMS consolidates the data received for archiving. The data can then be transferred on a scheduled basis to be analysed by your data application.

Business modules designed to analyse and act upon the data received and stored, may be developed and integrated into IDeMS. These may trigger actions on the remote connected equipment or send triggers for action to other correspondents.

IDeMS secure Web interface allows users with access rights to view project information specific to the appropriate set of devices in the field.