



Embedded Technologies \ Development:

Ethernet GSM/GPRS Modem

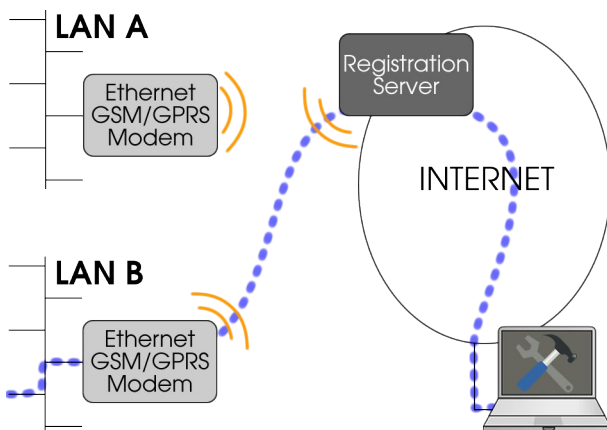
Ethernet GSM/GPRS Modem integrates 4-port ethernet managed switch 10 / 100 Mbit/s and GPRS modem. The device provides EtherNet/IP (CIP) connectivity and seamlessly integrates into RSLogix5000.

Main Features:

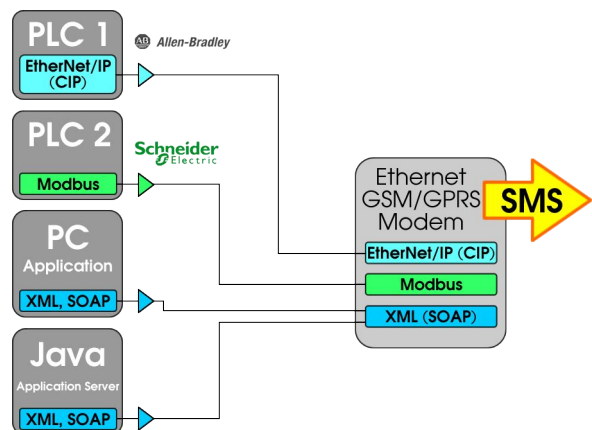
- **SMS Messages:**
The device adds SMS capability to other units in a LAN:
 - Outgoing: Modbus, EtherNet/IP or XML/SOAP interface is capable of receiving data, that are transmitted with SMS.
 - Incoming: Offers possibility to send commands from a mobile phone, that are delivered to a target device in a LAN.
- **Data Connections:**
Embedded GPRS modem offers communication in both directions:
 - Outgoing: Data reporting to a remote database, access to Internet or to other remote network (affiliate).
 - Incoming: Remote configuration and technology mgmt.
- **Integration:**
GSM/GPRS Modem natively supports communication with ALLEN-BRADLEY or SCHNEIDER ELECTRIC (Modicon) PLC units.
- **4-port Managed Switch:**
Covers features required for network traffic management: Port control, VLAN, QoS, IGMP Snooping.



GPRS Remote Access:



Sharing SMS Functionality:



Programming in RSLogix:

The screenshot shows the RSLogix 5000 interface for a program named 'MainRoutine'. The left pane shows a project tree with 'MainRoutine' selected. The main workspace displays a ladder logic network with the following components:

- Send** coil: Labeled 'automatic Send'. It is set to 'True if unauthorized MAC detected.' and 'MAC_unauth <EDM.I.Data[0].0>'.
- Add** block: Used to calculate the message length. It has two sources: 'Source A' (EDM_EMAIL_LEN, value 74) and 'Source B' (value 4). The destination is 'Dest SendEmail_EDM.REG_LEN' (value 79).
- Type - CIP Generic Message Control** block: Labeled 'MSG' and 'SendEmail_EDM'. It is connected to the 'Dest' of the 'Add' block.

Comments on the right side of the workspace state: 'MSG structure for sending email. Either From/To is contained in email msg or they were set by attribute set MSG before.'

Simple Example in C#:

```

using System.Linq;
using System.Text;
using System.Windows.Forms;
using GSMModemServiceClient.Poseidon.etch.cz;

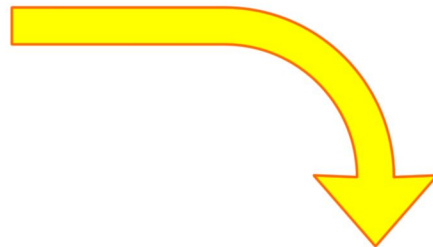
namespace GSMModemServiceClient
{
    public partial class Form1 : Form
    {
        private GSMModemServicePortTypeClient gms;

        public Form1()
        {
            InitializeComponent();
            gms = new GSMModemServicePortTypeClient();
        }

        private void btnSendSms_Click(object sender, EventArgs e)
        {
            SMSRequestIn req = new SMSRequestIn();
            req.To = tbTo.Text;
            req.Text = tbText.Text;

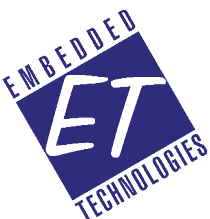
            SMSRequestOut rslt = gms.SendSMS(req);
            if (rslt != null)
                lblResultValue.Text = rslt.Result;
        }
    }
}

```



The 'Modem GSM Tester' window contains the following elements:

- To:** +420603147723
- Text:** Poslete nam vice informaci.
- Send SMS** button
- Result:** Ok



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