AGENDA

Company’s Presentation
The 3 eWON Product lines:
  - RA: Remote Access
  - RDO: Remote Data Online
  - RDC: Remote Data Collection
Our Products & Solutions
Exemples of projects
Live demo
Q&A
Who is eWON?

- Part of ACTL group, 40 employees, 11 M€
- Manufacturer of Smart Industrial Internet routers
- HQ in Belgium, Sub. in US & Japan
- Product line started in 2001
- ISO9000/9001 quality plan including full product traceability
- European technology
- CE/CSA/UL labeled products
- 92% export, more than 45 distributors worldwide
- > 100,000 units shipped
- +24,300 sold in 2013 only !...
Worldwide presence

- Added-value distributors network
- Local technical support, expertise, consultancy
- In more than 45 countries worldwide
eWON statements

eWON= Eyes Watching Over the Net

Our mission
- To make devices communicate securely across the Internet

Our values
- Enthusiasm
- Long term vision
- Commitment
- Quality

Our vision
- To become a worldwide leader in M2M remote connectivity products for the automation and infrastructure market

Our slogan
- Machines (and devices) can talk

Are you still sending people for support?
Our vision

Connecting devices across the Internet

- Any device
  - from packaging machine to robots, PLC, RTU, wind turbines, medical cyclotron, gas volume correctors, utility meters, irrigation controllers and many more...

- The connected devices can then...
  - « Talk »: SMS and E-Mail alerts, data, event logs, ...
  - Be « Monitored » and « Maintained » and (re-)programmed remotely
  - Be « Managed » securely through the Internet
Our 3 Product lines Offering

Remote Access
• To provide secure remote maintenance/diagnostics/programming of machineries and industrial devices

Remote Data Online
• To build-up PLCs extranet network for SCADA systems, based on VPN links

Remote Data Collection
• To build-up remote monitoring systems in industrial asset management and infrastructure

For System Integrators, Machines Builders and OEMs
A: Device Remote Access

- On-demand communication to your remote site to provide maintenance/diagnostics/(re-)programming of your industrial devices (PLC, RTU, Regulators, ...)

For System Integrators, Machines Builders and OEMs
Permanent communication to your remote site to provide online, fast and secure communication between your SCADA and your remote devices (PLC, RTU, Regulators, Flowmeters, Utility meters...)

For any SCADA project!
C: Remote Data Collection

• **Push technology communication** from your remote site to provide time stamped data archiving and alarming from any device.
Remote Access
Remote Access

- to save on travel costs
- to give live and online response when customer calls
- to reduce the impact of emergency situations (moving from reactive to proactive)
- to save on engineer’s schedules & well being
- to maximize machine uptime and productivity
- to provide new ways of services thanks to Broadband Internet connections
- To offer total security in remote communication
- To solve...visa issues of your engineers!
A turnkey remote access across the Internet with

- **Talk2M**, a Cloud-based remote access service
- **eWON Industrial Routers**:
  - VPN Tunneling through local LAN
  - 4 Ethernet ports switches
  - Can also connect to serial devices (RS485/422/232,MPI/Profibus)
  - Optional modem for fallback connection via landlines (PSTN, ISDN) and mobile Internet (2G, 3G, HSUPA..)
Firewall friendly

Key advantages for acceptance from IT team

Talk2M
Key selling points

- Replacing Modem with LAN connectivity
  - No need for a dedicated line
- Higher bandwidth available
  - New applications possible: live cameras, better HMI bandwidth, etc.
  - Transparent PLC remote programming
  - Multiple access by a backup modem if needed
- No Cost
- Additional features such as alarming, datalogging, web HMI and scripting in the same device
Extranet network for SCADA or industrial remote control applications
Having the need of permanent connections
Using PLC instead of expensive RTUs
Looking for a transparent and open system
Simple to install and deploy

For On-line SCADA projects !!!
Architecture

- Permanent links through Internet
- Full secure links using VPN tunnels between central site and RTUs
- Central site = VPN appliance server visible on the Internet
- Every site requests an eWON but Internet visibility is not mandatory (= no fix IP address !)
- Traffic is routed from central application to each node

INTERNET
Key selling points

- eWON establishes a permanent VPN communication to a central site
  - Cellular or ADSL com. typically needed
- eWON extends the SCADA or the Control system network
  - as if it was connected to the same LAN
- eWON is also a ModBus TCP & SNMP server
  - eWON can interface any industrial device with any protocol
- If no communication, data can be buffered temporarily
  - Data stored in files & retrieved later
Remote Data Collection
Remote Data Collection

- Data collection made at site
- eWON collects data locally and store them into its archives
- Data are « pushed » regularly on a central server (on event or periodically)
- Data can be pushed in HTML, FTP, or by eMails
- Can also send alarm on any critical conditions
Every eWON reads first data from PLCs/devices in tags
Those tags are datalogged in separate files
Files can then be prepared to be sent...
  • ...In FTP
  • ...In HTTP
  • ...by eMail
eWON sends archives as its programmable pace or on event
Product portfolio
Our offering

- **At sites: FLEXY and Cosy Line**
  - Programmable
  - With embedded services
  - Compliant with major machine languages

- **Cloud connectivity services: Talk2M**
  - One-click Internet remote access
  - Fully Secure

- **At SCADA site: VPN server appliance: eFive**
  - Easy to configure
  - Up to 200 remote sites connected per appliance
  - Versatility to connect using 2G, 3G, HSUPA, DLS or LAN connection option
eWON product line

- **eWON FLEXY**
  - Advanced Industrial VPN Routers

- **Cosy 123**
  - Industrial VPN Routers. Easy

- **eWON 500**
  - Ethernet to Serial Gateway

- **Machine Connectivity**
  - Protocols gateway

- **VPN Remote Access**
  - VPN
  - Firewall friendly
  - Mobile access
  - Plug’n Route
  - Configuration Wizards

- **Advanced Embedded Services**
  - 2G
  - 3G
  - 3G+
  - PSTN
  - ISDN
  - ADSL
  - Basic Java
  - Alarm notification
  - Historical logging
Talk2M
a Cloud Service approach

Cloud architecture for Remote Access across the Internet:
- Immediately available
- Several servers provided through different contractors
- Simple & straightforward to install & use
- **Free** and Professional Service
- Servers spread internationally
Talk2M running eWONs

More than 100,000 eWON simultaneously connected on Talk2M! (20/08/2014)
eWON technical features...
eWON Main Features

Security

- **VPN tunneling**
- Based on **SSL encryption**
- **Cost savings:**
  - eliminating the need for expensive long-distance leased lines
  - reducing long-distance telephone charges
  - offloading support costs
- **Easy to deploy** (128-bits certificates)
- **No scalability problems**

*Bringing cybersecurity to the communication of your devices!*
eWON Main Features

Multi-vendors ready

- Ethernet to Serial gateway +
- To read/write data from Ethernet and Serial PLCs & automation devices into internal tags
- Large PLC/RTU/Remote IO support: Siemens, Rockwell, Schneider, Omron, Mitsubishi, Hitachi, Beckhoff, B&R, ABB, VIPA, Delta, Wago, TBOX, Brodersen, VMonitor, GE, and many others
eWON Main Features

Alarming

- Read values from PLCs or devices
- Store them into tags
- Generate alarms based on user configuration thresholds (4)
- Alarm notifications can be SMS, Email, FTP
eWON Main Features

Data logging

- Local archives:
  - Values in Tags can be recorded into historical/real time logging or files
  - Up to 1,000,000 time-stamped events !!!
  - can be viewed in HTML (four pens plotter)
  - Or sent/retrieved in FTP/HTTP
  - Completely configurable !
eWON Main Features

Programming

- BASIC Scripting (eg. to interface simple ASCII proprietary protocols, non critical processing, …)
- JAVA Programming, for complex & embedded remote applications
Mini-SCADA inside:
- Embedded HTML HMI
- Dynamic tags animation + control command
- Trendgraphs
- Alarms views
- Editor ("ViewON") to configure your own pages
eWON is a FTP Server!
- configuration part are in separate files
- easy download/upload with FTP software (i.e. FILEZILLA)
- Up to firmware level
- Can be made automatically !!!
Hardware

"Flexy-ble" architecture

- The first modular industrial M2M Router!
  - Base module with 4 slots
  - Wide range of extension modules
3 base modules

- Three modules per family
  - **Flexy x01** – 4 x Ethernet 10/100 switch
  - **Flexy x02** – 1 Ethernet 10/100 + 1 RS232/485 serial port
  - **Flexy x03** – 1 Ethernet 10/100 + 1 MPI/Profibus port
**Wide range of extension cards**

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<thead>
<tr>
<th>Type</th>
<th>Description</th>
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<tr>
<td>A</td>
<td>2 serial ports (RS232/485/422)</td>
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<tr>
<td>B</td>
<td>Cellular 3G+/HSUPA Pentaband</td>
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<tr>
<td>X</td>
<td>WAN Ethernet 10/100MB</td>
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<tr>
<td>X</td>
<td>IO card (8DI/4AI/2DO)</td>
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<tr>
<td>A</td>
<td>PSTN modem</td>
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<tr>
<td>B</td>
<td>WIFI</td>
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<tr>
<td>B</td>
<td>CDMA</td>
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<tr>
<td>B</td>
<td>ADSL</td>
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Industrial & Robust design

- UL 60950-1
- CSA-C22.2 No 60950-1-07
- IEC/EN60950-1
- UL certified (File Number #E350576)
- CB certificate n°DK-29479-M1-UL
- Class 1 Division 2
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<th>Vibration &amp; shocks tested according to:</th>
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<td>IEC 60068-2-6 Vibration</td>
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<td>IEC 60068-2-2 Dry heat test</td>
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<td>1999/5/EC R&amp;TTE directive</td>
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Even better together...
Our customers speak best for us

See dozens of success stories here: http://ewonrouters.tumblr.com/
Summary
Applications fields
Drinking Water
Irrigation
District Cooling
Trash containers monitoring
Building Monitoring
ATM Monitoring
Mosque Monitoring
Transportation
Some recent examples...
Example: DNO, Iraq
Example: Gulf Cryo, UAE
Live Demo...
Live Demo (1)

« Take full control of your device 6000 km away! »
In our Belgian office...
Live Demo (2)

From here:

eCatcher
(free utility from eWON)
Live Demo (3)

Remotely in our Belgian Office…:

[Diagram showing network connections involving Talk2M, CompactLogix, Ethernet camera, and DF1 (serial) through WAN and LAN connections.]
The result: direct and secured communication up to PLC level!
Live Demo (5)

On location X: eWON modem is in Idle mode

Wake up SMS !!!
Live Demo (6)

3G+ modem connects!
Inside an eWON

**FTP Server**
- Configuration Files
- Datalogging Files
- Alarms Files
- System Log

**Web Server**
- Config Web Pages
- viewON Web Pages
- Monitoring Page

**Database**
- eMail
- FTP put
- SNMP trap
- SMS

**Basic Script**
- Alarms Mgt.
- Datalogging

**TagNames**
- MODBUS TCP
- ISOTCP
- EtherNet/IP
- XIP
- FINS TCP/UDP
- More...

**Serial routing**

**Input/output**
- PSTN, ISDN, GSM/GPRS
- 3G Modem
- Ethernet 10/100Mb
- IP Routing, NAT, IP Forwarding, VPN
- TCP/IP
- Ethernet 10/100Mb
- PPP

**Hostlink**
- Modbus RTU / MPI, PPI, AS511 / DF1 / UniTelway / FINS Hostlink / ...

**ASCII – VCOM**
- RS232/422/485 or MPI port
eWON... a weird animal!
www.ewon.biz