



Case Study: Natural Gas Pipeline Remote Management

Arctic GPRS Gateway Enables Cost-Effective Remote Management of a Natural Gas Pipeline in Thailand

A major natural gas company in Thailand wanted to remotely control compressor stations that are located alongside a pipeline. Wiring costs can be high and wires get accidentally cut, thus the solution had to be wireless.

A major natural gas transportation and distribution company in Thailand wanted to have better control over their operations. The offshore and onshore transmission lines in their vast natural gas pipeline network are several thousands of kilometers in length. In addition, the distribution lines branch out from the transmission lines to serve various industrial users.

What is a compressor station?

An onshore gas pipeline is divided into smaller sections by so called compressor stations. It is natural to have small pressure differences along the pipeline. Compressor stations are instruments used for monitoring and compensating these inevitable but small pressure differences.

A compressor station can also detect whether a leakage in the pipeline has occurred. For billing purposes, a compressor station has gauges that measure how much a particular industrial customer has consumed gas.

Wireless beats wireline

A Remote Terminal Unit (RTU) interfaces with the electronics at a compressor station. An RTU, in turn, can be connected to a centralized SCADA control center via its serial data interface. The natural gas company was looking for a reliable wireless connectivity solution as wiring costs can be high and wires can get accidentally cut. Not to mention high monthly communication costs.

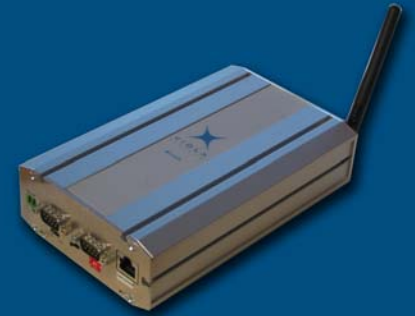
Viola works through local sales partners

The natural gas company turned to Prompt Technical Services who are Viola's sales partner in Thailand. In collaboration, the parties developed a solution that exceeded the end-customer's expectations.

Want to know more?

Call our number +358-(0)201-226 226 or send email at sales@violasystems.com.

For more information, please visit at www.violasystems.com



Key Benefits of the Viola M2M Solution™

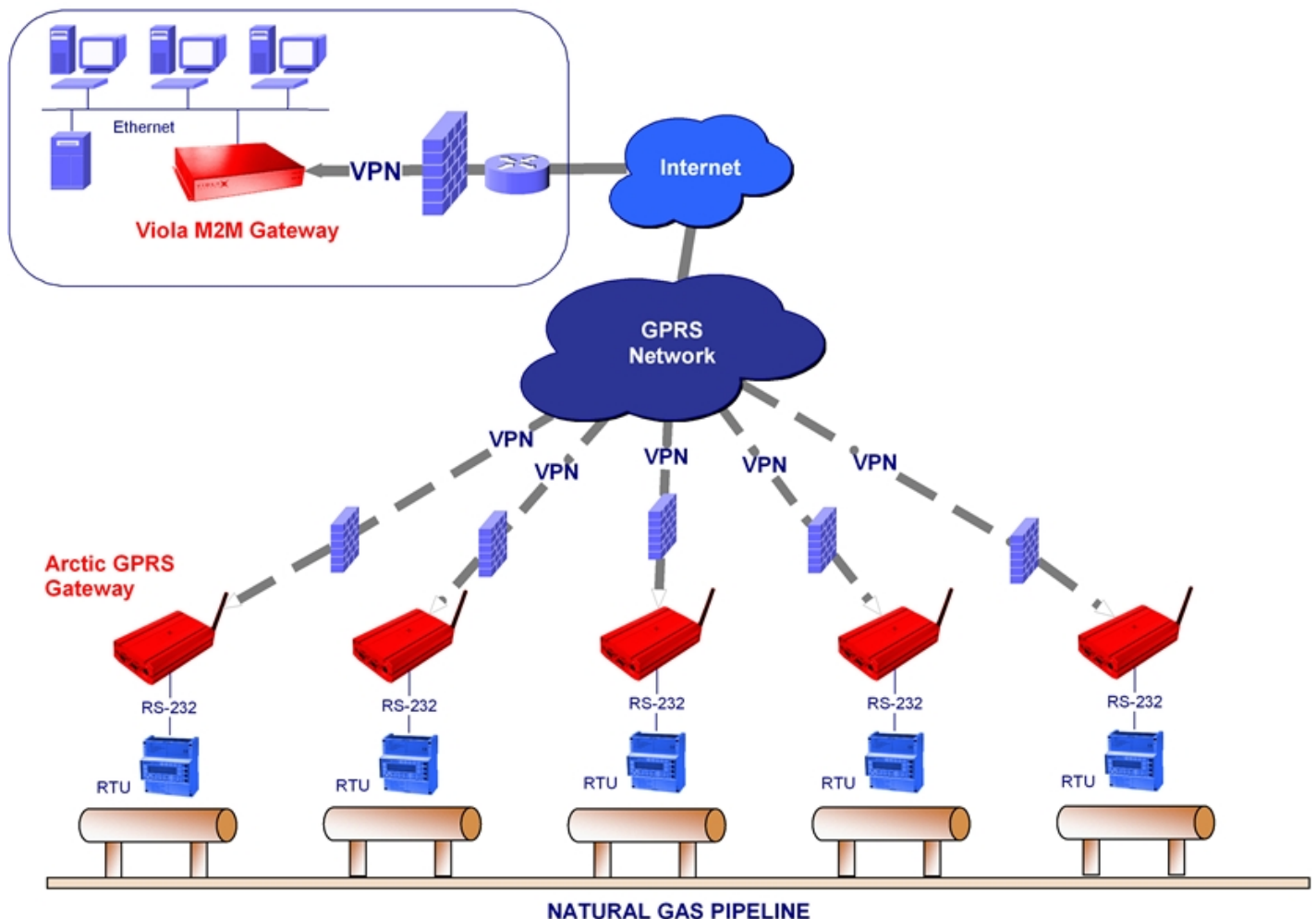
- ✓ Eliminates expensive wiring costs
- ✓ Easy to install and deploy
- ✓ Operator-independent
- ✓ Industrial-grade; robust design for harsh, industrial environments
- ✓ Always-on, secure; automatic connection monitoring and re-establishment

Industry:	Utilities, Natural Gas
Customer:	A major natural gas company
Solution:	Arctic GPRS Gateway + Viola M2M Gateway

Key Benefits of the Viola M2M Solution™

- ✓ Fixed connection might be difficult or costly to arrange; the Viola M2M Solution™ works in any place where a GPRS/EDGE network is present
- ✓ Extremely easy to install and deploy: "15 minutes – up and running"
- ✓ Operator-independent; the Viola M2M Gateway takes care of arranging fixed IP addresses and eliminated the need to rely on local mobile network operators in this matter
- ✓ Robust design for harsh and demanding industrial environments
- ✓ Always-on, secure; automatic connection re-establishment

SCADA NETWORK CONTROL CENTER



About Viola M2M Solution™

Unlike many competitors who sell boxes, Viola delivers a total secure end-to-end connectivity solution that seamlessly integrates remote devices and sites to centralized management systems such as SCADA or HP OpenView. No changes to existing systems are needed. Viola M2M Solution™ is an install-and-forget-it, hassle-free approach. In addition, Viola M2M Solution™ is operator-independent; it allows customers to implement two-way data communications in a similar manner all around the world.

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