

CASE STUDY

KEEPING LEGACY EQUIPMENT IN SERVICE WITH A MODEM EMULATOR

Industry: Water/Wastewater

Product: Spectre Cellular Router with AT Modem Emulator User Module



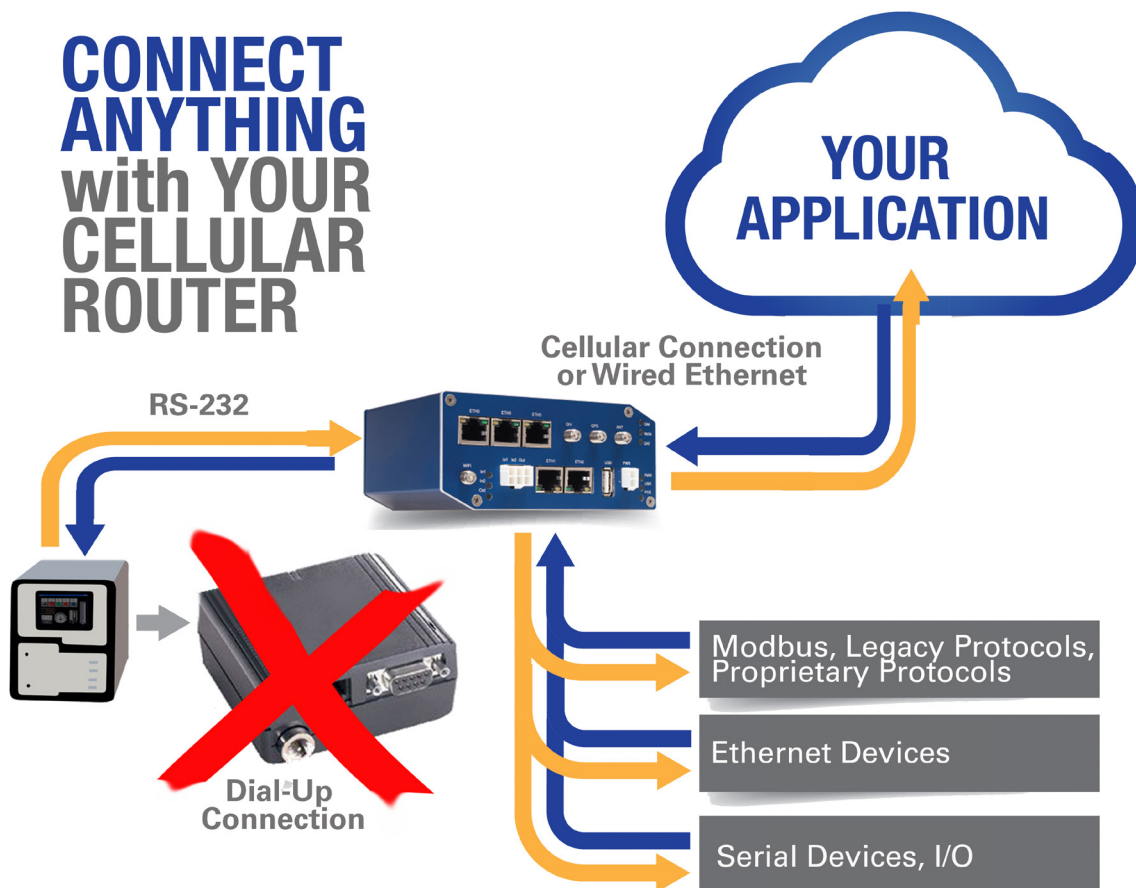
A European company managed 400 water treatment stations and planned to add more. Data transfer from the treatment stations relied upon RS-232-modems and landline dialup connections. When the largest telephone service provider in the region announced plans to end support for landline dialup connectivity, the water treatment plant operator had to find an alternative. The company would need to act quickly, but ripping out and replacing all of their existing devices and data networking infrastructure would be both time consuming and prohibitively expensive.

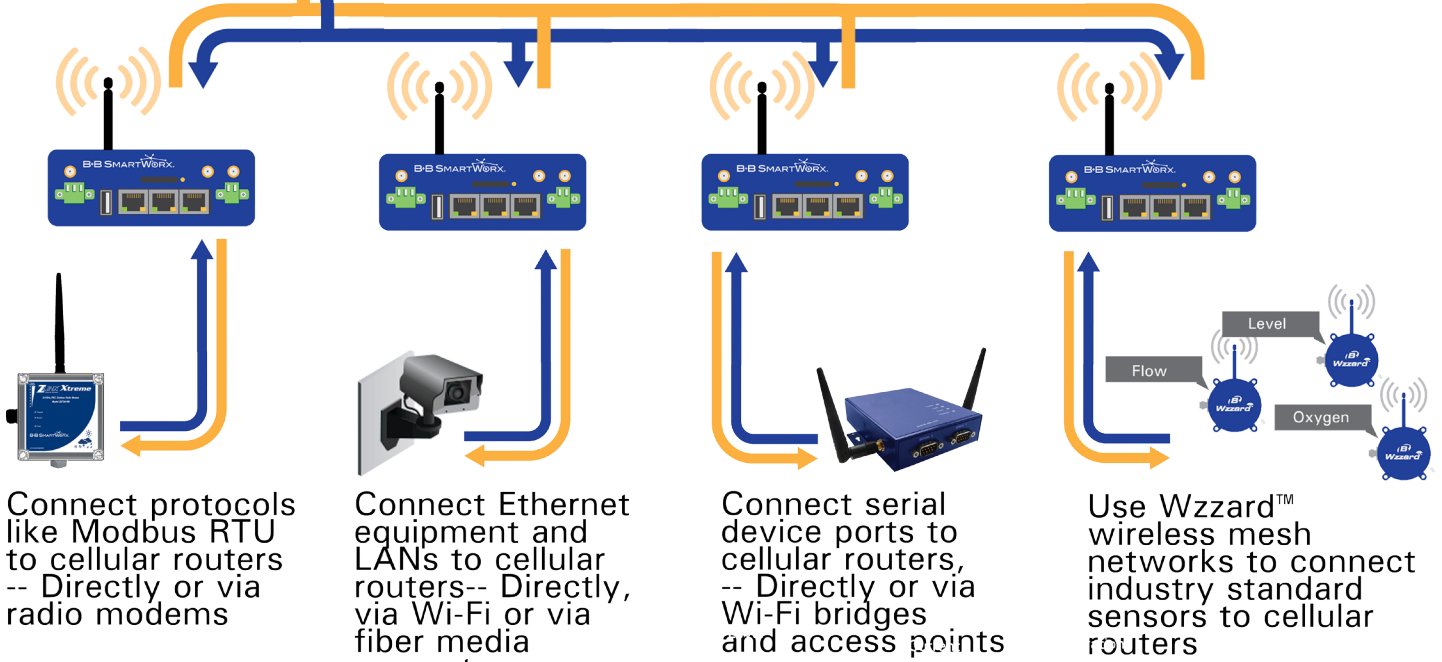
THE SOLUTION

There was nothing wrong with the legacy equipment that collected and reported the plant data. The problem lay in the communications link to the main office. If that could be upgraded, the existing plant monitoring equipment could continue to function just as it always had, with no need to replace or reprogram the modem based legacy devices out in the field.

The answer was a Spectre Cellular router with an RS-232 expansion port, which allows RS-232 devices to connect directly to the router. After the optional AT Modem Emulator User Module is installed, the router can replace the old RS-232 modems. Dialup connectivity is no longer needed, as the Spectre router can connect to the Internet via either the cellular networks or wired Ethernet.

The B+B SmartWorx AT Modem Emulator User Module gives our cellular and wired routers the ability to act as a modem to send and receive data over a TCP/IP network instead of a PSTN (Public Switched Telephone Network). Equipment that was designed for modem access can now communicate transparently to its corresponding software application across the router's Ethernet interface.





Connect protocols like Modbus RTU to cellular routers -- Directly or via radio modems

Connect Ethernet equipment and LANs to cellular routers-- Directly, via Wi-Fi or via fiber media

Connect serial device ports to cellular routers, -- Directly or via Wi-Fi bridges and access points

Use Wizzard™ wireless mesh networks to connect industry standard sensors to cellular routers

OPTIONAL USER MODULES FOR PROTOCOL SUPPORT

- Support for Mitsubishi ALPHA
- Support for the BGP routing protocol
- Convert IEC101 - IEC104
- Support for IS-IS
- Read stored values from the buffer
- Convert MODBUS TCP to MODBUS RTU
- NHRP - Dynamic Multipoint VPN
- Support for OSPF
- PIM-SM - Independent Multicast
- RIP routing protocol
- Support for the SuiteHt protocol
- Support for Cisco System's Simple Certificate Enrollment Protocol
- Connect the device serial line to a TCP Server or Servers



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