IEC 61850 Subtations Retrofits Integration

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Common Challenges of Retrofit Substations

Challenge

Substation system engineers may have less communication domain knowhow or limited time to bridge devices for system integration.

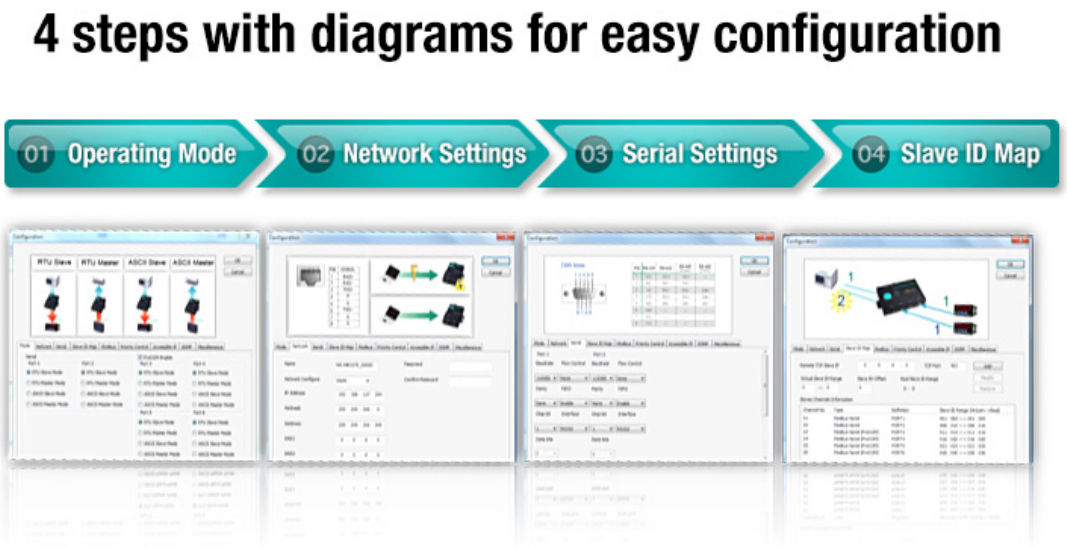
Major Concerns

Challenge 1: An incorrect configuration due to unfamiliarity with protocols can cause communication failures.
Challenge 2: Effortlessly read existing serial device data from a new server or application.
Challenge 3: Would like a user-friendly platform to develop my own unique application.

Solution

User-Friendly Windows Utility and Web Console for Protocol Gateways

More often than not, substation engineers do not have enough communication domain knowhow, or only limited time for system integration. Engineers who are not familiar with the different protocols used by substation equipment could configure their system incorrectly and cause communication failures. For these reasons, it makes a lot of sense to simplify and streamline the configuration process. Moxa?s Windows utility and web console for protocol gateways can be configured by a user-friendly web console that walks you through the entire setup process. All you need is a computer with an Ethernet port and web browser, and then complete 4 simple steps presented with straightforward diagrams for easy configuration.



Real COM Driver Helps Legacy Serial Devices Get IP-Enabled

How can you effortlessly read data from existing serial devices from a new server or application? Moxa?s Real COM mode is designed for users who do not have the budget or resources to recode their legacy application software. The NPort driver does this for you by creating a virtual COM port on the host computer; the COM port maps to a network IP port, which ?acts like? a serial port. Your application software

won?t know the difference, and will keep crunching away as though it were connected directly to the serial device, even though the data is actually being sent over the network. We provide drivers for more than 20 different OSs, and continuously develop drivers for new OSs and OS versions to provide the best system interoperability and flexibility.

Open Platform for Unique Application Development

Substation engineers who are not expert programmers but still want to develop their own unique application can benefit from an easy-to-use open development platform. The programming environment provided by Moxa?s embedded computers is an open platform similar to Linux, and it is much easier to use than cross-compiling from a desktop computer.

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Native Compiler

- Programming environment similar to Linux desktop
- Much easier than cross compiling

Easy-to-extend software packages

- Debian ARM support, with more than 48,575 stable packages ready to use, including IPSec and NetSNMP.

Ready-to-run wireless computer and data acquisition

- Supports wireless-enabled functions and related development guide
- Ethernet-to-cellular
- Serial-to-cellular

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