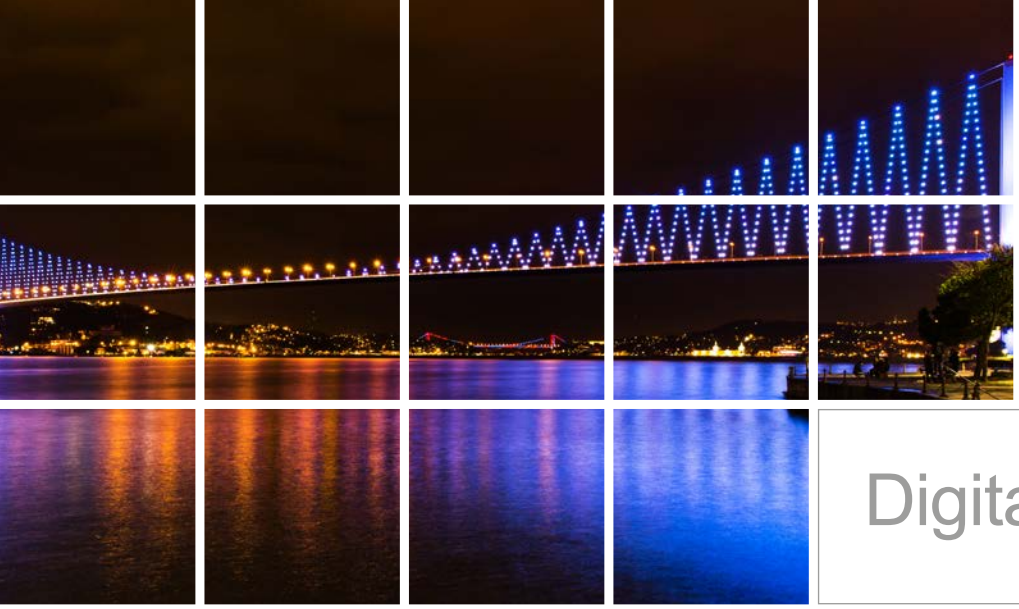


implico

Digital Transformation

Modern TCP-X-Unit simplifies oil loading

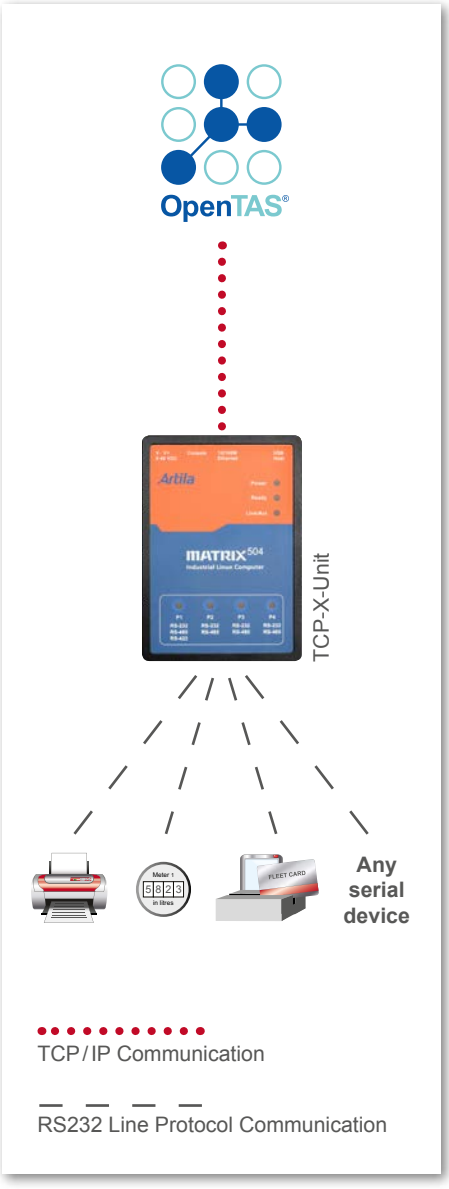
Advanced communication between field devices and OpenTAS terminal management system / Internet of Things finds its way into loading processes

Older hardware and modern software often do not speak the same language, which makes it impossible for legacy field devices connected via serial links to communicate directly with the OpenTAS terminal management system. This usually requires an additional computer that converts the loading hardware's legacy signals for the OpenTAS software. The TCP-X-Unit is a new, compact solution from Implico which considerably simplifies the previously required hardware environment. At the same time it represents a major step toward the Internet of Things (IoT).

The new TCP-X-Unit converts the field device's RS-232 signal into a TCP/IP signal and transmits it to the OpenTAS automation processes via Ethernet protocol.

The new complete solution is a suite comprising the powerful Matrix-504 microcomputer and suitable software developed by Implico especially for OpenTAS connectivity. Except for this pocket-sized computer, no further hardware is required for the connection.

The TCP-X-Unit introduces the Internet of Things into loading processes: Not only can the device be serviced and operated remotely, users are also able to monitor data throughput from anywhere and view the information sent most recently.



The benefits at a glance: **The new TCP-X-Unit ...**

… simplifies the hardware landscape

The new solution facilitates straight-forward communication between serial-linked field devices and the OpenTAS automation technology without requiring additional hardware. The TCP-X-Unit has three ports, enabling one unit to control up to three peripheral devices. This reduces the need for control hardware, simplifying the IT landscape and lowering total cost of ownership. It also extends the service life of legacy peripheral devices, which do not have to be replaced for communicating with modern software.

… is low maintenance

The Matrix-504 microcomputer has a robust design suited to rough environments and is – of course – explosion-protected. It contains no movable parts. The device features low power consumption and very low heat emission, which ensures an extraordinarily long useful life.

… enables remote access via web service

The TCP-X-Unit is equipped with a web service for remote access. This makes it possible to manage, configure, update or start the microcomputer remotely via a web browser. The solution's set of useful features includes data throughput remote monitoring and the ability to display the most recently sent and received information.

… is powerful

Thanks to the Matrix-504, the TCP-X-Unit is now even more powerful: Compared to its predecessor, the solution has not just one but three ports, a better processor and more memory, all of which boost performance substantially.

… processes protocols from all manufacturers

The TCP-X-Unit is capable of processing numerous manufacturer-specific protocol types including MCO1, Siemens-3964R, TRANSPARENT, SMITH, MODBUS ASCII and MFX80. This makes it suitable for all field devices commonly used for loading processes at refineries and tank terminals.

… facilitates easy error correction

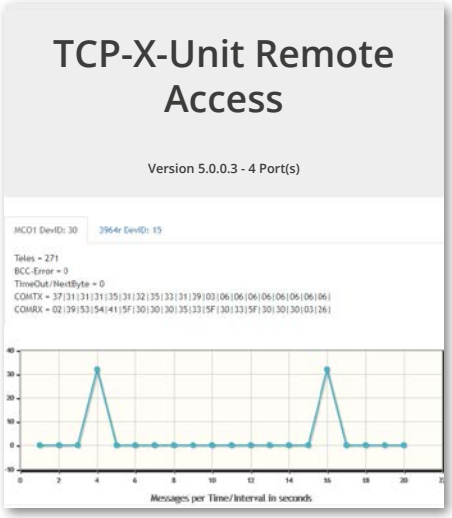
If a productive TCP-X-Unit fails, local staff can simply replace the box without requiring any specific IT knowledge. After replacing, the preconfigured backup device is set to the failed unit's IP address and restarted. The unit then automatically receives all the required settings and protocol information from OpenTAS and is available for use immediately.

User-friendly and reliable

Implico's new TCP-X-Unit is an easy-to-use, reliable and powerful solution for communication between field devices and the terminal management system.

It minimizes downtime and thus ensures a continuous and stable loading process. The solution enables you to meet today's challenges and – even more importantly – to get ready for tomorrow's digital tank terminals thanks to the unit's Internet of Things functionality.

To find out more about the TCP-X-Unit and the opportunities it offers, please contact: contact@implico.com

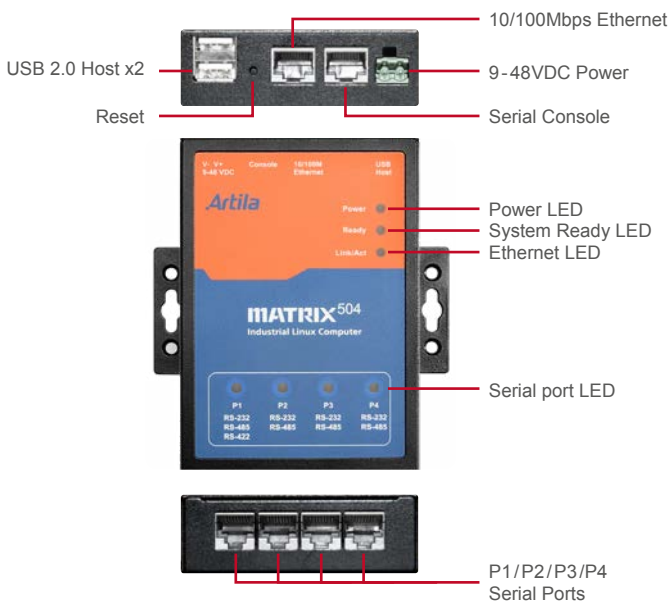


The remote access functionality enables users to monitor the TCP-X-Unit's data throughput.

Technical data

The TCP-X-Unit is realized on an ARM9 based Embedded Computer, runs under Linux OS and is preinstalled on On-Board-Flash.

- Flash File System
- 10BASE-T Ethernet, 10 /100 Mbit for Host coupling
- ARM Processor 400MHz / 128 MB flash, 64 MB SDRAM
- Three RS-232 ports for the connection of serial field devices
- A serial port for maintenance and setup (console)
- Power supply 9 to 48V DC, 4W
- Dimensions without base 78 x 108 x 24mm



About Implico

The Implico Group optimizes logistics and business processes for oil and gas downstream companies. The international consulting and software company with its headquarters in Hamburg, Germany, has subsidiaries in Malaysia, Romania and the USA. Founded in 1983, the company today employs around 200 staff.

Implico provides consulting services, data services and software solutions for the entire supply chain – from forecasting and dispatching to data collation. Leading oil and gas companies all over the world trust in Implico's industry expertise and high-performance IT solutions.

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