RELIABLE CONNECTION OF INDUSTRIAL SYSTEMS

SUMMARY

Industrial communication is changing. The rise of IoT caused the industrial sector to evolve and turn to automation to survive in the competitive market and maximize their potential in sense of time resources, productivity and scale.

A problem with the legacy industrial protocols is that due to long lifecycle of industrial systems, over the years they accumulated many various standards. It is difficult to implement such a variety of protocols into nowadays automation tools.

Ethernet-based solutions are becoming the new standard in the industrial communication. As it is more flexible, economical and speedy, we may witness more and more solutions changing their serial protocols to IP.

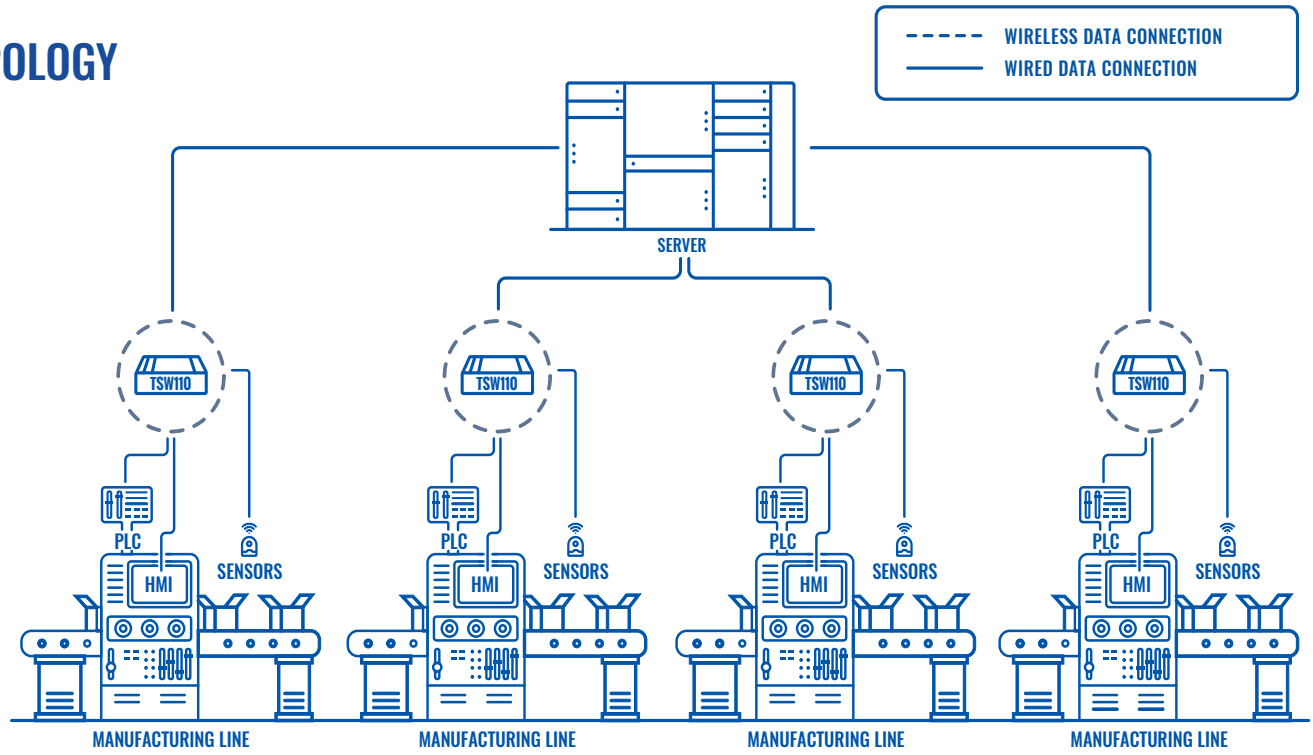
CHALLENGE

It is an old truth that a solution is only worth as much as its' weakest link. Manufacturing equipment requires not just high investment but also professional means of connecting it. There is a wide variety of switches available in the market. However, industrial applications call for professional networking tools that are reliable, sturdy enough, easy to deploy, and can be relied upon. Partial infrastructure changes are a constant challenge in the industrial sector, and there is no room for taking risks with low-quality amateur products.

SOLUTION

In factories, there usually are multiple different manufacturing lines. All of them consist of various HMIs, PLCs, and sensors interconnected into a network. This task is accomplished by a TSW110 industrial switch, which works as an intermediary among all pieces and enables data transmission to the server, where it can be processed and analyzed.

TOPOLOGY



TSW110 is an unmanaged industrial switch with five 10/100/1000 Mbps Ethernet ports for an economical high-bandwidth solution that is more than enough for connecting various manufacturing equipment. Besides, its' compact size combined with DIN rail or surface mounting options make it a quick and easy task to deploy it. This plug-n-play device will take seconds to set up!

Factory environment requires a rugged device. Therefore, a product with sturdy aluminum housing is the best option. TSW110 operates in a wide range of temperatures - from -40 C to 75 C, so it offers a broad amplitude of application scenarios. For example, it would work just as smoothly in factories producing frozen products as in a confectionery.

BENEFITS

- Compact – measuring 100 x 30 x 85 mm, this device fits in any electronic box or server cabinet and takes seconds to deploy using a DIN rail or surface mounting options.
- Wide temperature range – from -40 to 75 C, ensures reliable connectivity in most industrial environments.
- Sturdy – we chose aluminum housing for this product to increase durability.
- Plug-n-Play – no additional set-up required.
- Economical – this device offers exactly what is needed in most industrial applications with no excess functionalities, making it very economical and competitive in the market.

WHY TELTONIKA NETWORKS?

Teltonika Networks is well-known as a manufacturer of high-quality cellular networking devices. Over many years in the market working with clients from different parts of the world and an incredible variety of projects, we gained valuable experience and lessons, enabling us to expand our portfolio by developing new products. We continue our efforts to create top-quality networking products required by the rapidly growing IoT market to offer devices that are reliable, secure, and easy to use.