Ensuring Optimal Water Quality Through the Cloud

Challenge:

A leading water filtration OEM needed a way to transfer real-time data from their commercial water filters to a cloud application.

The OEM required a reliable networking solution that could relay data regarding water filter usage, output quality and maintenance to the cloud. This would allow the OEM's end-user customers – fast-food restaurants and coffee shops – to monitor the condition of their water filter and receive notifications when filters needed to be replaced or serviced.

Furthermore, this compact network-enabling solution needed to quickly and easily integrate with their product. Could Lantronix provide a secure, easy-to-integrate networking solution that allowed instant transfer of data from the water filter to the cloud?
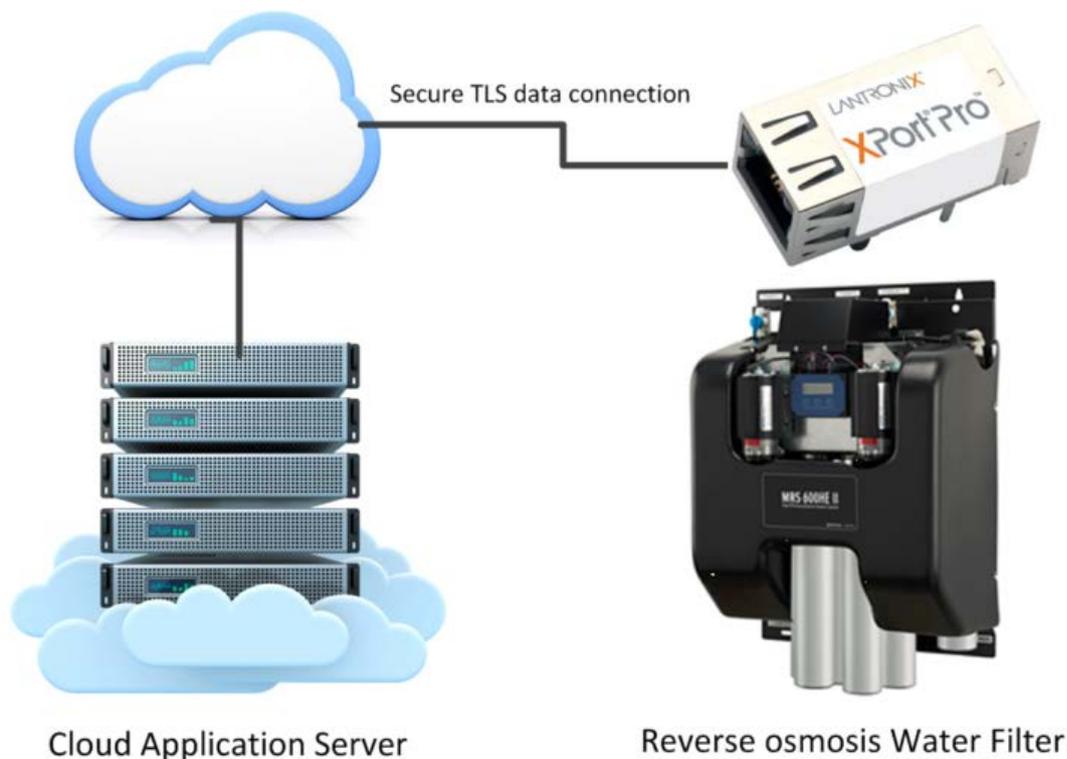
Key Requirements:

- Secure network connectivity between the commercial water filter and the cloud
- Ease-of-implementation
- Solution must be scalable, reliable, and cost-efficient

The Solution: The Lantronix XPort Pro

The Lantronix XPort Pro embedded device server made it possible for the OEM to simply integrate secure networking into their solution without a complete redesign of their controller device. By embedding the XPort Pro device server in the water filtration unit, the device is now capable of transmitting real-time data regarding usage, quality and maintenance through a TLS connection. The TLS connection serves as a private protocol that enables the secure exchange of information between the water filtration unit and the cloud. The OEM's end-user customers can now access this data through the cloud and receive immediate notifications when a replacement or servicing is needed.

The Lantronix XPort Pro device provided the OEM with the secure, reliable connectivity needed to ensure that their end-user customers maintain consistent water quality.

Lantronix XPort Pro Application: Secure Connectivity between the Water Filter and the Cloud

Results:

- Quick time-to-market and ease of integration into their solution
- Instant connectivity between the water filtration system and the cloud
- Water filter is replaced at an optimal time
- Significantly reduced development time

About the Lantronix XPort Pro

The Lantronix XPort Pro device server is a powerful, self-contained embedded networking module. Footprint compatible with Lantronix's popular XPort embedded device server and running either Linux or Evolution OS operating systems, the XPort Pro eliminates the complexity of designing network connectivity into a product and allows you to deploy advanced applications on the edge device itself. The thumb-sized XPort Pro provides everything you need in a single embedded solution. It effortlessly handles demanding applications with the power of a high-speed, advanced architecture 32-bit processor. And with ample built-in memory, it allows virtually unlimited flexibility for customization and application enablement.

XPort Pro Key Benefits:

Enable M2M edge computing and effortlessly handle demanding applications with the power of an advanced architecture 32-bit processor
Run Linux or Lantronix Evolution OS operating system for the ultimate in application development flexibility
Production-ready hardware and software solution provides simple device set-up, configuration and monitoring, with powerful, industry-standard management tools
Footprint compatible with Lantronix's popular XPort embedded device server, with everything you need in a tiny, integrated RJ45 package that is EMC/EMI/RoHS compliant