Metrohm upgraded SMB protocol support without app code change

Introduction

Having achieved global trust as one of the top manufacturers of high-precision instruments for chemical analysis, Metrohm, headquartered in Switzerland, has expanded into an international company that distributes its products through over 37 subsidiaries and exclusive channels in more than 80 countries.

Despite having a stable, secure solution that was connected and protected by a firewall, some customers of Metrohm expressed disappointment with their embedded system because they considered SMB1 to be unsafe. The measurement device was capable of reading, saving, sharing, or printing collected data, and even though the risk of cyber attacks was low, users desired compliance and support for the latest SMB3 protocol because it offers end-to-end encryption and further advanced security methods that protect data traffic and give users peace of mind.

> " We did not have to modify any code to use SMB3 because the stack has been added to the operating system, ensuring it would fit seamlessly within our application, which was of utmost importance to me.

Stefan Dürr
Senior Electronics Engineer.

The Challenge

Metrohm's devices use a highly advanced application that has been developed over the course of many years and runs on Toradex Colibri Arm miniaturized System on Module (SoM), based on Windows Embedded Compact. In order to avoid complicating it with additional stacks, Metrohm requested that Toradex integrate SMB3 capabilities in the lower layer of the WinCE operating system. Once obtained an evaluation license from Visuality Systems and tested its YNQ stack in a specialized environment, where it performed successfully, Metrohm instructed Toradex to implement the stack in a way that would be entirely transparent to Metrohm's embedded system application.

Why Metrohm Chose Visuality Systems

Metrohm chose Visuality Systems because of:

MARKET DEMAND

After Microsoft discontinued SMB1 due to vulnerabilities, customers increased pressure to upgrade existing connections from SMB1 to SMB3.

SIMPLE IMPLEMENTATION

Using existing, fully supported software libraries was much easier compared to the high effort required to proceed autonomously with product development.

FUTURE PROOF

Adding SMB3 libraries without changing the application prolonged the product life by many years, especially in the face of SMB potential changes.

> "
> *Introducing SMB3 into our products was easier thanks to Visuality Systems. Our sales subsidiaries are very happy that they can offer it because this is what the market needs.*

Stefan Dürr
Senior Electronics Engineer

Ω **Metrohm**

The Results

With Visuality Systems' YNQ, Metrohm did not have to modify any code to use SMB3 on their devices. Toradex included the YNQ stack in the WinCE operating system, ensuring it would fit seamlessly within Metrohm's application, which was of utmost importance. Stefan Dürr, Senior Electronics Engineer at Metrohm, commented on Visuality Systems: "Good product, nice people. Go with them if you need it."

Want to see similar results?
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Our team of experts has years of experience in delivering SMB protocol solutions that work in any environments, from the simplest to the most challenging ones

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Drop us an email to info@visualitynq.com