

periMICA

HARTING HAIIC MICA Upgrade Procedure



Application Note

Confidential



Abstract

This Document summarized the procedure to update a HARTING HAIIC MICA to Perinets periMICA firmware.

Document Information

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1 Introduction

The periMICA is an edge computing device which can run typical functions needed in an IIoT/IoT application in the field. Specifically functions like data preprocessing/aggregation, local function control, showing dashboards or forwarding data to higher level IT-systems.

The periMICA hosts lightweight virtual machines, so-called containers, and allows you to set up your applications with the same techniques used nowadays in the cloud. You can see the periMICA as a data center in a box, which greatly supports shifting the functionality of your application between cloud and field, according to your needs.

Perinet also provides containers for functionalities needed on field level in (I)IoT applications, typically, e.g. a local MQTT broker. It is therefore the first stop for data travelling from sensors or actuators to the cloud. The sensors and actuators are connected preferably via network, as shown in Figure 1, in combination with our other products. In the same time, the periMICA is ideal as bus master for non-Ethernet sensors as well.

Everything from network infrastructure down to sensor & actuator:

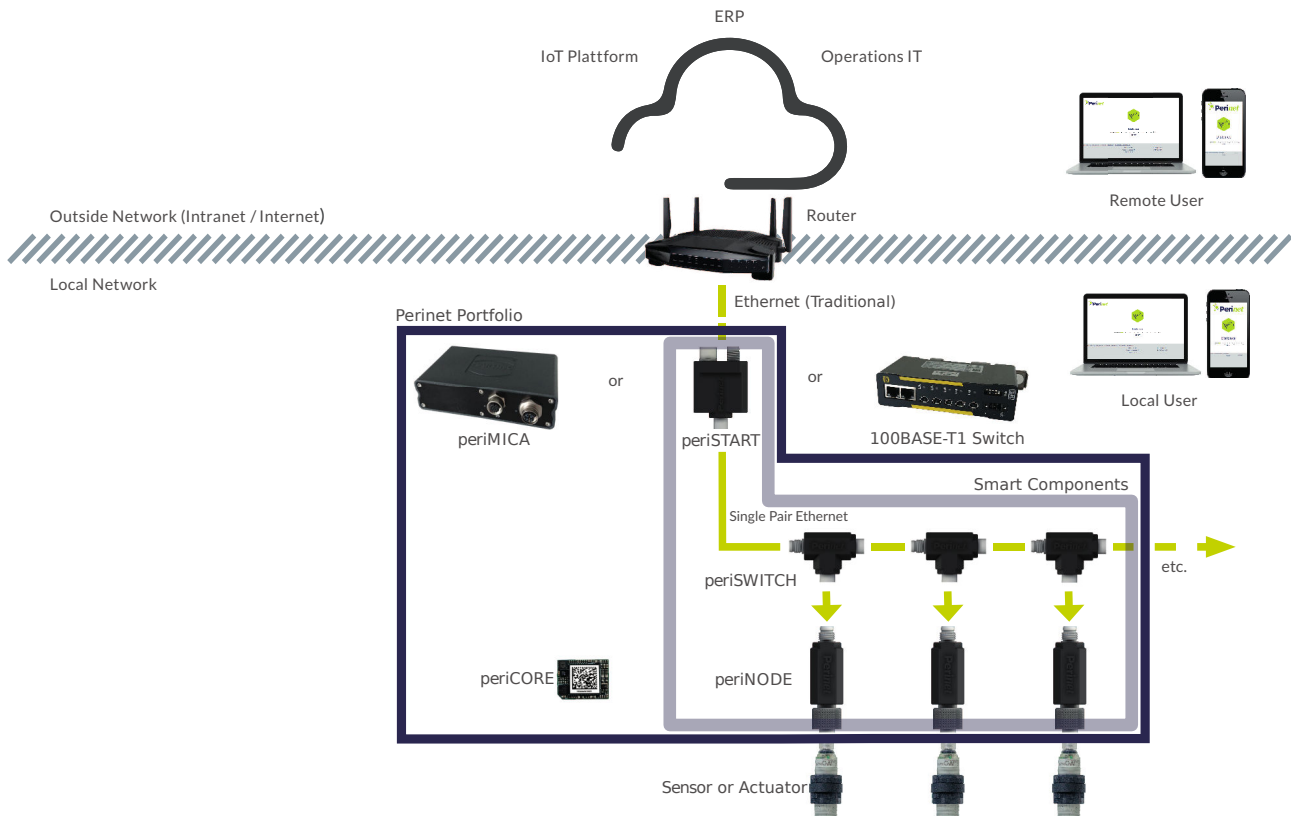


Figure 1: Perinet Seamless IoT Connectivity System

The periMICA is also a perfect base for your own product development, due to its modular hardware & software architecture. This allows you to develop specialized products in low and mid-quantities for reasonable costs.

2 Update Procedure

This document is intended for developers who already have experience in developing with the HARTING HAIIC MICA. If you wish to bring the software of a HARTING HAIIC MICA up to the level of a periMICA in order to test your own developments in interaction with the periMICA system software, please follow the instructions and warnings below.

Warning: Upgrading a HARTING HAIIC MICA as described in this document may lead to the destruction of the device. The upgrade process is not reversible. Furthermore, devices that have been upgraded to Perinets periMICA from a previous HARTING HAIIC MICA must not be used in a productive environment. It must be guaranteed, those devices will not reach an end customer.

Note: A HARTING HAIIC MICA that includes a supply module S2 (MICA ETH Wireless) cannot be upgraded to a Perinet periMICA with the following process.

The firmware images, provided for the execution of the process described in this document must not be delivered to third parties.

Perinet GmbH does not provide support for devices, which may become unusable after the execution of the following process:

The following firmware images are provided:

1. `SIGNED_HAIIC_MICA_10_r.tar` (HARTING Firmware 10)
2. `SIGNED_devmode_from10-1.tar` (generic development mode activated)
3. `periMICA-development-update-21-02.tar` (periMICA firmware)

A HARTING HAIIC MICA may be updated (via the update user interface) with the images mentioned above in the exact same order as they have been mentioned above.

3 Further Documentation

Document Name	Description
periMICA Product Summary [3]	A product features summary documentation for the <i>periMICA</i> .
periMICA Quick Start Guide [4]	A setup guide for the product <i>periMICA</i> . The starting point when you are new to the product.
periMICA User Guide [5]	A detailed description and reference documentation of the product <i>periMICA</i> .
PKI2go Container User Guide [6]	A detailed description of the public key infrastructure (PKI) <i>periMICA</i> container 'PKI2GO'.
Security Certificates Installation Guide [7]	A guide on how to install prerequisites certificates on various platforms (MAC, Windows and linux).
periMICA Debian Container User Guide [1]	A detailed description of the base container of a <i>periMICA</i> lxc-based container. It's the starting point for container development.
<i>periMICA Product ReBranding Application Note</i> [2]	A detailed description for development to re-brand the product <i>periMICA</i> to a dedicated customer corporate design.

4 Contact & Support

For customer support, please call us at **+49 30 863 206 701** or send an e-mail to support@perinet.io.

For complete contact information visit us at www.perinet.io

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B Glossary

IIoT Industrial Internet of Things. 4

IoT Internet of Things. 4

PKI Public Key Infrastructure. 6

C References

- [1] Perinet GmbH. periMICA Debian Container User Guide. PRN.100.462. <https://docs.perinet.io/>.
- [2] Perinet GmbH. *periMICA Product ReBranding Application Note*. PRN.100.583. <https://docs.perinet.io/>.
- [3] Perinet GmbH. periMICA Product Summary. PRN.100.389. <https://docs.perinet.io/>.
- [4] Perinet GmbH. periMICA Quick Start Guide. PRN.100.391. <https://docs.perinet.io/>.
- [5] Perinet GmbH. periMICA User Guide. PRN.100.392. <https://docs.perinet.io/>.
- [6] Perinet GmbH. PKI2go Container User Guide. PRN.100.465. <https://docs.perinet.io/>.
- [7] Perinet GmbH. Security Certificates Installation Guide. PRN.100.447. <https://docs.perinet.io/>.

D Revision History

Revision	Date	Author(s)	Description
1	2022-09-13	shoe	Initial Release