Swissbit – KUNBUS – aicas - AWS

Use Case: **Data Security in Smart Warehouses**.

Michael Reimann, aicas GmbH | May 2024

Features

Combined capabilities of the joint solution for intelligent warehouse data security:

- AWS IoT cloud services capabilities

- Swissbit security capabilities

- KUNBUS embedded communication capabilities

- aicas device and data management capabilities

The designed use case is a smart (weighing) shelf.

Demo Setup

3 Subsystems:

1. A „target" system consisting of the scale and a Raspberry / Revolution Pi on which the data causer user would authenticate himself by Swissbits USB Dongle.

2. A "cloud" system by AWS consisting of (generic, TBS) AWS IoT Services, aicas edge data gateway EDG and optionally the device portal EDP.

3. A "host" system on which the data consumer user would access the data assembled by the scale.
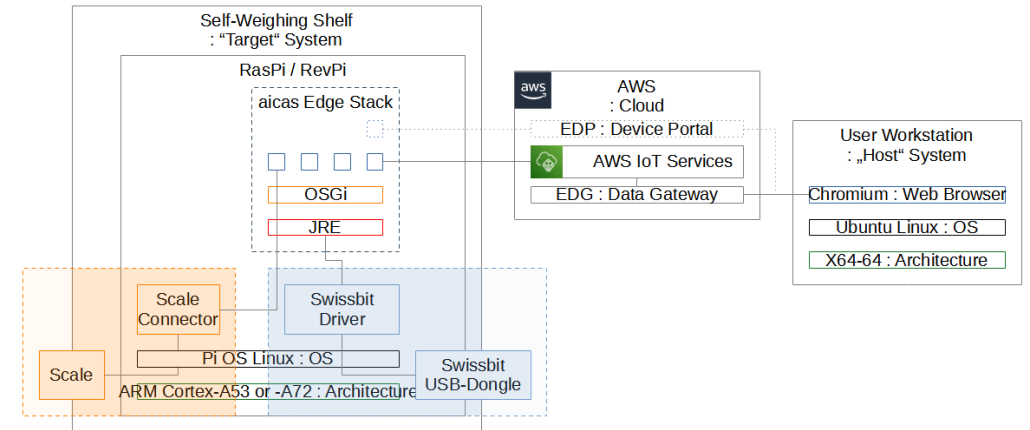
Spotlight on aicas Edge Device Portal (EDP)

aicas Edge Device Portal (EDP) is used to develop, operate, and maintain the system:

- Repository for newly developed microservice components

- Automated Testing of the components

- Remote Device Management

- Software Over-the-Air Updates

- Operational Status and Software Lifecycle Control

- Remote Maintenance
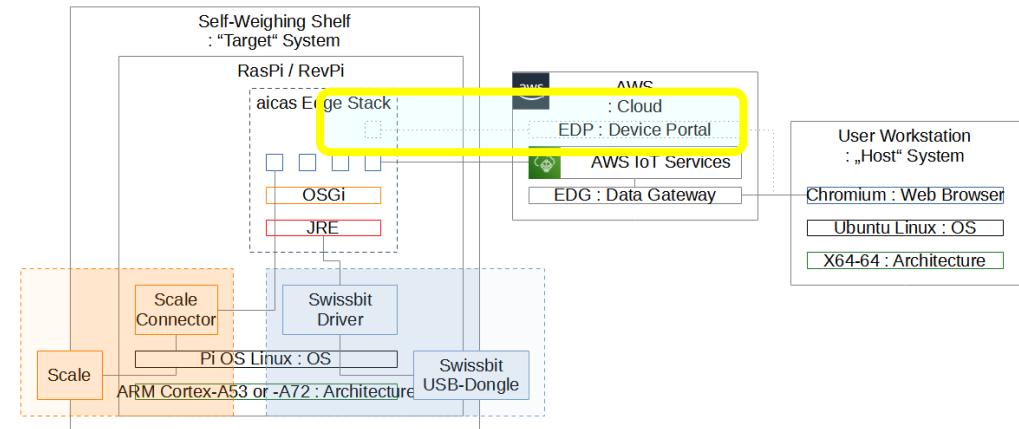
This allowing a small development team to develop the solution in a short period of time.
Time savings that turn immediately into cost savings by up to 90% as reported by our customers.

aicas Edge Device Portal (EDP) in AWS

aicas Edge Device Portal (EDP) is implemented

using Amazon Web Services. (Depiction)

aicas Edge Device Portal (EDP) has received the
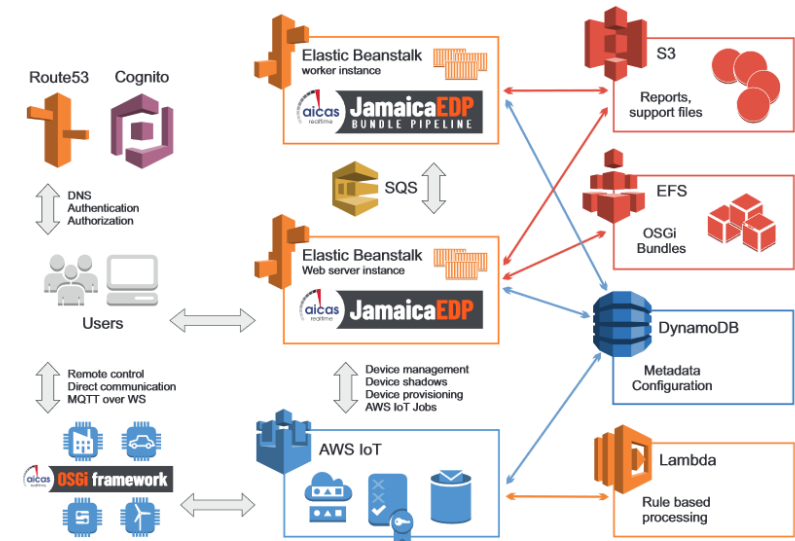
AWS Foundational Technical Review (FTR).

Figure 13: Cloud infrastructure overview

The edge components provided by aicas that is – amongst others – the Java and OSGi runtime system JamaicaAMS carrying a specialized AWS IoT Device SDK has received the AWS Foundational Technical Review (FTR).

An AMI for JamaicaAMS capable of, for example, simulating the solution inside AWS Elastic Compute, is readily available on the AWS Marketplace.

Embedded. Connected.

aicas GmbH
Emmy-Noether-Str. 9
76131 Karlsruhe
Germany

+49 721 66 39 68 0

www.aicas.com

info@aicas.com