

DornerWorks Embedded IoT OTA Platform



GEORGE EBELING
Computer Engineering



MICHAEL FINK
Computer Engineering



JON GILLMAN
Electrical Engineering



KENDRA HAAN
Computer Engineering



CHAD LOKKER
Electrical Engineering

Project Description

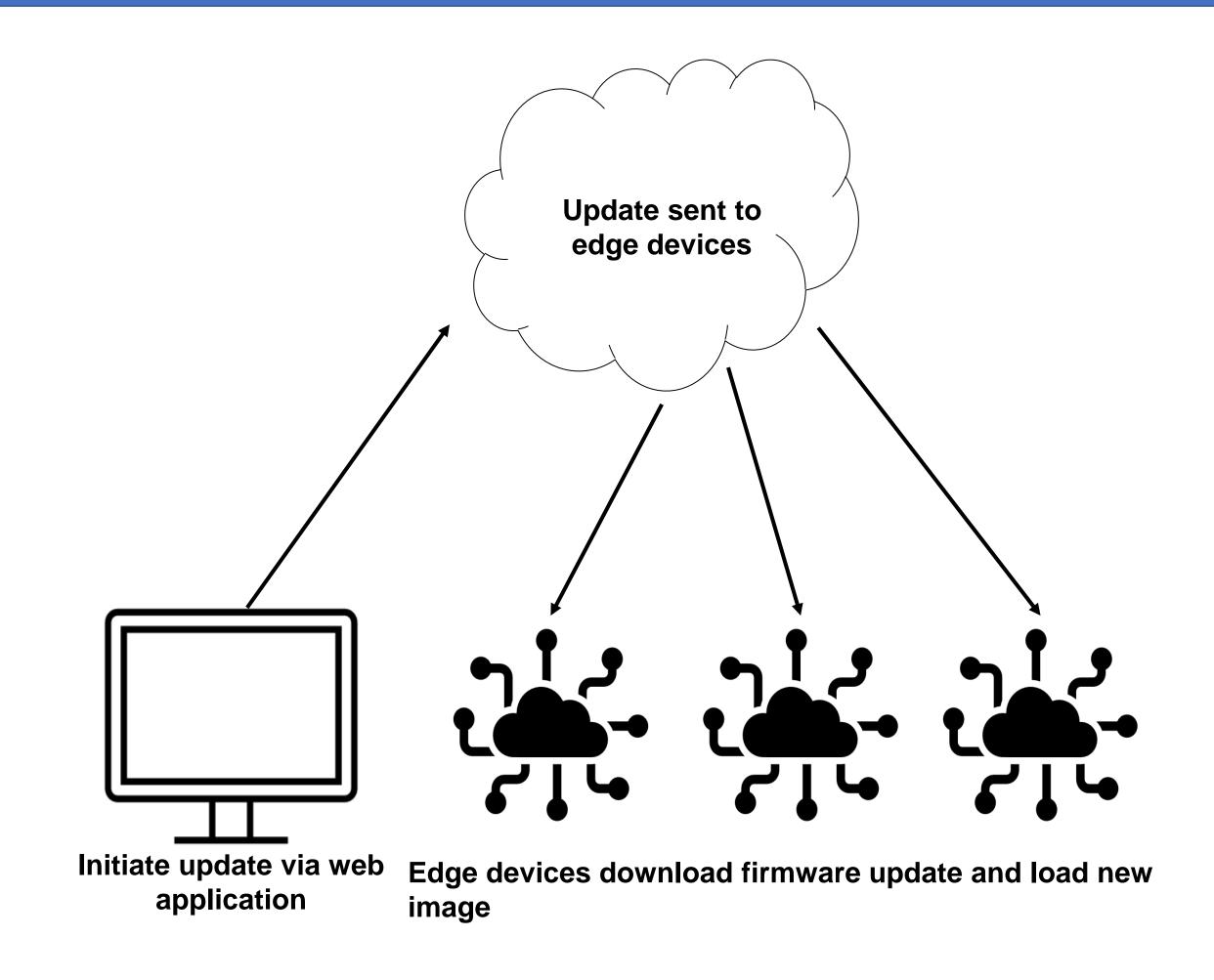
The goal of this project was to develop a generalized platform that would allow devices to be updated without any direct interaction. This is known as Over the Air Update (OTA). To demonstrate the portability of the platform, two different hardware devices were used to develop the code base, also known as edge devices. One of these hardware platforms uses a NXP microcontroller and the other uses a Microchip microcontroller A web platform was also developed to allow users to upload an updated firmware image which can then be sent to the edge devices over the internet.

What is IoT?

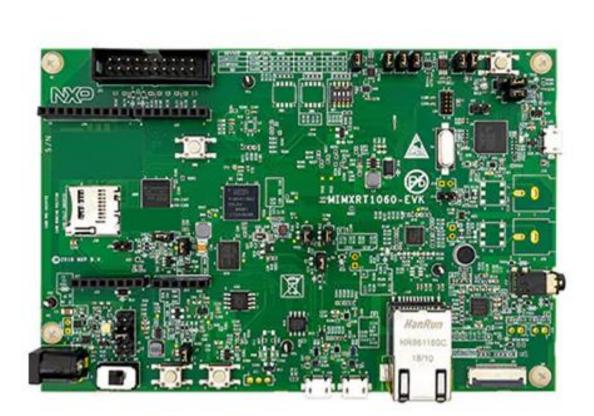
- Internet of Things
- Network of physical objects (things)
 - Embedded devices
- Perform data transfer with each other over the Internet

What is OTA?

- Over the Air Updates
- The ability to download new firmware to a device over the internet
- Can change a device's
 performance in the field
 without having to send it to a
 manufacturer to be updated



HARDWARE

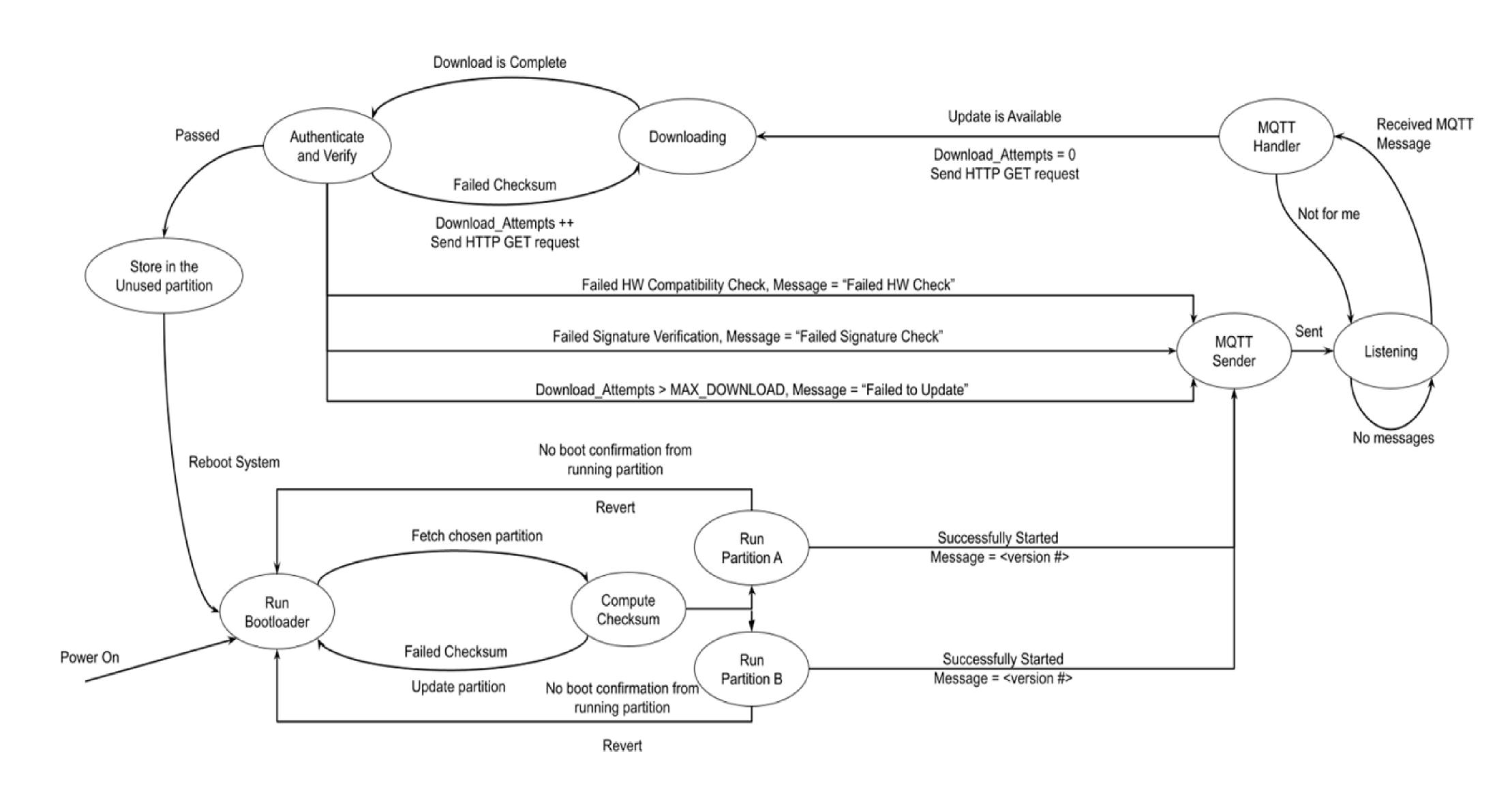


iMX RT1060 EVK

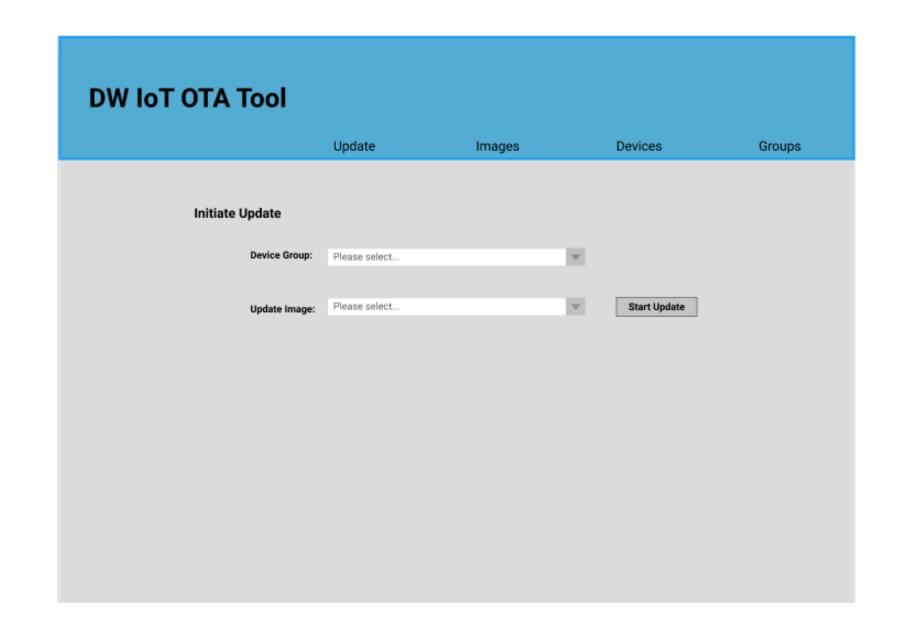


SAME54 Xplained Pro

SOFTWARE



WEB APPLICATION



DW IoT OTA Tool	Update	Images	Devices	Groups
Add New Image				
Name				
File Path				
Image Description (options	nl)			
			Upload Image	

