Nymi Band 3.0
Legic Admin Guide

September 27, 2023
Version 1.0

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1 Revision History

Date	Version	Revision History
September 27, 2023	1.0	Initial Release.

2 Background

This document provides an overview of and administration workflow for the Legic enabled Nymi Band 3.0. The Legic security platform provides end-to-end security for smartphone and smartcard-based logical and physical access in industrial IoT applications. Nymi has integrated the Legic Advant technology into the Nymi Band, operating over the contactless 13.56 MHz near-field communication (NFC) interface. This document will provide the specifications and recommended guide for customers setting up and deploying the Nymi Band for Legic applications.

2.1 Legic Technology Specification

The Legic technology integrated in the Nymi Band is the card-in-card **Legic Advant** application. The legacy Legic Prime technology **is not supported** by the Nymi Band. The Legic-enabled Nymi Band has been tested and is compatible with Legic Advant enabled NFC readers (13.56 MHz) over the ISO 14443A contactless standard.

Figure 1 - Legic Advant technology supported by the Nymi Band

2.2 Nymi Band Model

Legic Advant is a new edition to the Nymi Band 3.0 capabilities, and is only available in specific models of the Nymi Band. To check whether your Nymi Band is Legic enabled, verify the serial number engraved on the underside of the strap. The serial number is a 9-digit alpha-numeric number with the format AAAA-#####.

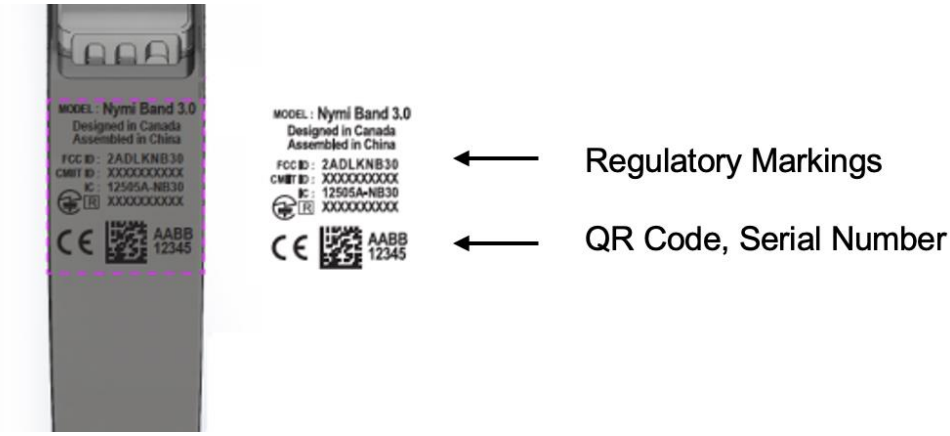

Figure 2 - Serial number location on Nymi Band 3.0

If the band is Legic enabled, the **second** digit will be the letter "N". For example, serial number A**N**EK-00710 is Legic enabled, while A**M**EK-00710 **is not** Legic enabled.

2.3 Legic Activation

When a customer requests the Legic feature of the Nymi Band, Nymi must internally perform a step to **activate** the Legic application in the band. This involves secure operations within the Nymi secure manufacturing process. When the customer receives a Nymi Band with the Legic application activated, it effectively acts as a blank Legic Advant smartcard. The workflow for encoding and personalizing credentials onto the Legic applet in the Nymi Band is identical to any traditional workflow with a Legic Advant smartcard.

3 Workflow

Legic Advant is a highly customizable platform that allows customers to configure, manage and control the type of encoding and credentials that exist in the Legic applet. These credentials traditionally go on a Legic smartcard and are provided by a 3rd party system integrator of the customer's – in other words, the entity that supplies the existing Legic solution for the organization. Nymi will work with the customer and system integrator to provide a convenient method to load credentials onto the Nymi Band. Nymi cannot be physically responsible for loading customer-specific credentials into the Legic portion of the Nymi Band, it **must be done** through either the direct involvement of the customer or their third party Legic system integrator.

This section describes how the Nymi Band 3.0 operates during the administrative encoding process of the Legic credential, and a recommended workflow for deploying the bands to end-users.

3.1 Encoding and User Flow

When the Legic enabled Nymi Band is received by the customer, it does not have any users registered to the device, nor is there an encoded Legic credential on the device. The customer or system integrator is responsible for using their regular encoding workflow to encode a Legic credential onto the Nymi Band. The Nymi firmware provides a simple method to do this, as described below.

Typical Legic encoding workflow with the Nymi Band:

1. To encode Legic credentials onto the Nymi Band, connect the band to the charger and wait for it to boot to the "NO USER" screen. Note that while the band is connected to the charger, the NFC interface is enabled and the Legic applet is accessible. The Nymi Band essentially behaves as a Legic Advant smartcard.

Figure 3 - Un-enrolled Nymi Band

2. Configure the Legic encoding software (ie. the DKS-6000 software and EVB-6300 reader from Legic) as you would for any Legic Advant card encoding.

Figure 4 - Legic 6000 series eval kit with EVB-6300 reader and DKS-6000 software, as an example.

3. With the charger still connected to the Nymi Band, tap the band on the Legic transponder, and perform the encoding operation via the software. The software should provide a method to verify that the credential was correctly encoded.

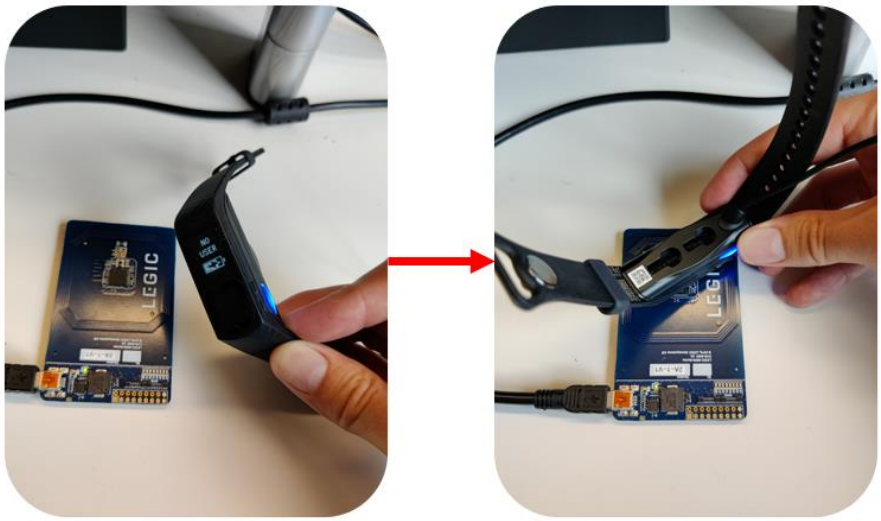

Figure 5 - With the device on charger, tap the Nymi Band on a Legic transponder for encoding.

4. After the Legic credential has been encoded on the band, it can be assigned to a user in the organization. The user should then go through the Nymi enrollment process to register their fingerprint to the band.

Note: Once the user enrolls their Nymi Band with their fingerprint[1], the ability to access the Legic credential while the band is on charger is permanently **disabled**.

5. With the Legic credential encoded and user enrolled to their band, they are ready to use their Nymi Band for Legic applications within the organization. The Legic credential is activated when the Nymi Band is in an authenticated state, meaning, after the user wears and provides their fingerprint successfully to the band. The user can then tap their Nymi Band to any Legic reader to provide their Legic credential.

Figure 6 - Authenticated Nymi Band on user

3.2 Band Reassignment

When a Nymi Band is reassigned to a different user, the original user's credential and fingerprint information is deleted from the band[2]. Since the Legic credential is independent of the Nymi Band credential, as it is encoded before initial band assignment, the Legic credential remains the same (is unchanged) if the band is assigned to a different user. Nymi recommends that if a Nymi Band is reassigned to a different user within the organization, care must be taken to ensure that the Legic credential is reassigned as well. It is possible, but not recommended, to re-encode the Legic credential on the band.

[1] https://support.nymi.com/hc/en-us/articles/360058686851-Enrolling-a-Nymi-Band-3-0
[2] https://support.nymi.com/hc/en-us/articles/12502177133588-How-to-Delete-User-Data-from-a-GEN-3-Nymi-Band

4 Conclusion

Legic Advant technology is supported by specific models of the Nymi Band 3.0. When a customer orders a Legic enabled Nymi Band, Nymi activates the Legic Advant applet in the device allowing the customer to encode and personalize a Legic credential on the band. Encoding and personalization is expected to be done by the customer directly or by their Legic system integrator. The encoding process is easily performed by connecting the un-enrolled band to a charger and tapping it on the encoding transponder before being assigned to a user. Nymi will work closely with customers and their system integrators to ensure a smooth process in encoding, assigning, and deploying Legic-enabled Nymi Bands to their employees.

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