



Nymi With Evidian Configuration Specifications

Connected Worker Platform

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Introduction

Based upon the type of system (e.g., configurable or custom), configuration and design specifications provide a detailed, technical expansion of the Functional Specification (FS) (see Appendix D2).

The specifications outlined in this document explain how the system will do what is defined in the FS. This information provides the basis for subsequent configuration management.

This document is the Configuration Specifications (CS) for a solution in which user authentication for login and electronic signatures is based on biometrics instead of usernames and passwords.

Software Design

Connected Worker Platform is a Category 4 product under GAMP and defined as a configured product. Software Design specifications are required for custom applications. This is not normally required for configurable products, where software design is normally reviewed or evaluated as part of supplier assessment.

Nymis software is developed and validated based on internal processes, outlined in *10014 - Software Development Life Cycle and 10009-Verification and Validation*.

Nymi Connected Worker Platform with Evidian Access Management Solution

The Nymi-Evidian solution extends the use of the Nymi Band. With Evidian Authentication Manager, a user can use their Nymi Band to lock and unlock a Windows desktop. With Evidian Single Sign On (SSO), a user can use their Nymi Band to perform MES authentication events. There are several supported deployment configurations in the Nymi-Evidian solution.

The Nymi Band supports two authentication methods in an Evidian environment:

- Wearable (NFC with Bluetooth)—During communications, tapping the Nymi Band on an NFC reader initiates the authentication, and then the Nymi Band is cryptographically authenticated over Bluetooth. This is the default authentication method.
- RFID-only—During communications, the Nymi Band is identified by using only the NFC UID without cryptographic authentication.

Nymi provides you with one or more *TokenManagerStructure.xml* files, based on your configuration needs. The *TokenManagerStructure.xml* file defines the supported authentication types and modules that implement the authentication modules. The contents of the *TokenManagerStructure* file are loaded on the Evidian EAM Controller and the default configuration is pushed by the Evidian EAM Controller to the Evidian EAM Clients. To override the default authentication method on a terminal, place a different version of the *TokenManagerStructure* file locally on the terminal.

The *TokenManagerStructure* file for the Nymi Band as a Wearable device differs from the *TokenManagerStructure* for the Nymi Band as an RFID-only device.

There are several supported deployment configurations in the Nymi-Evidian solution.

- Nymi Band configured as a wearable device
- Nymi Band configured as an RFID-only device
- Nymi Band configured as a mixed use device

Note: This document is specific to an Evidian configuration that uses Active Directory Lightweight Directory Services to provide data storage and retrieval support for directory-enabled applications.

Environment Configuration

The section outlines the configuration requirements for the enrollment terminal and the user terminals.

Refer to the *Nymi Connected Worker Platform—Deployment Guide* for details about NES requirements and [Support NFC Readers](#) for information about supported NFC readers.

User Terminal Requirements

The user terminal is a Windows 10 machine that operators use to perform MES authentication tasks. User terminals include local machines as well as machines that are connected to remotely through an RDP session or on a Citrix server.

The user terminal requirements differ depending on the type of user terminal:

User Terminal Type	Requirements
Local Wearable User Terminal	<ul style="list-style-type: none"> Nymi Bluetooth Endpoint and the Nymi Agent software to support MES operations. Evidian Enterprise Access Management (EAM) Client, with a valid Evidian license file. Nymi-supported NFC Reader. BLE Adapter (BLED112).
Remote Wearable User Terminal	<ul style="list-style-type: none"> Nymi Bluetooth Endpoint software to support MES operations. Evidian EAM Client on the Citrix server or remote session host, with a valid Evidian license file. Network access to the centralized Nymi Agent.
Local RFID-only User Terminal	<ul style="list-style-type: none"> Evidian EAM Client, with a valid Evidian license file Nymi-supported NFC Reader.

Network Requirements

User Terminals require a connection to the enterprise domain and bidirectional communication through the following firewall ports:

- For an AD LDS configuration, The user terminal communicates with the listening port of the AD LDS service. When you use the Evidian quick installer as described in this document, the port defaults to 55000.
- For a centralized Nymi Agent, the Evidian EAM Client communicates with the Nymi Agent machine on default port 9120.
- For communications between the Evidian EAM Client and Evidian EAM Controller, communication occurs on port 3644.

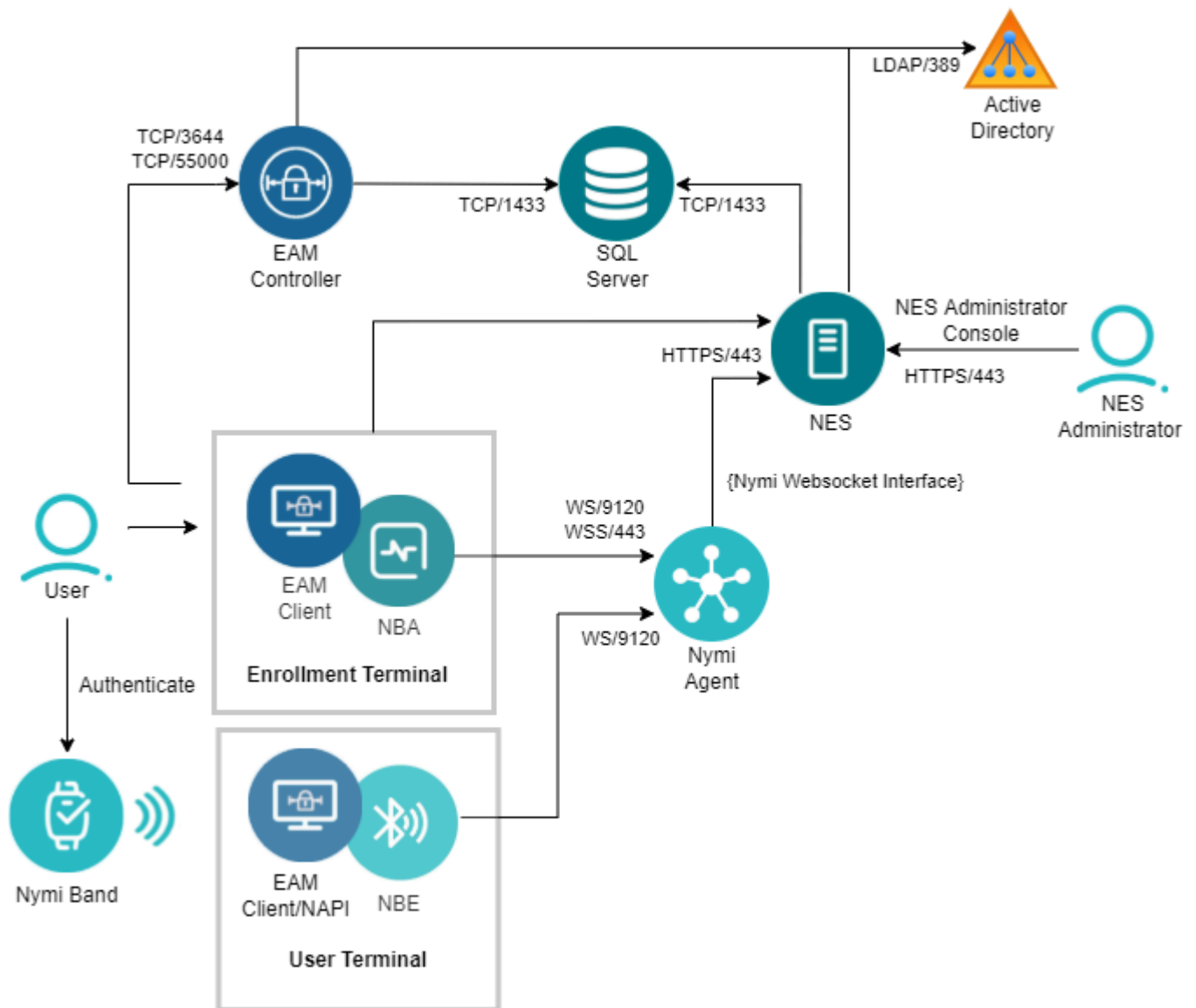
Enrollment Terminal Requirements

- Evidian License File.

- Nymi Band Application.
- Evidian EAM Client.
- Local Administrator access or Directory Administrator Access.
- Connection to the enterprise domain.
- BLE Adapter (BLED112)
- Bidirectional communication ports open on the firewall.
 - The enrollment terminal communicates with the listening port of the AD LDS service. When you use the Evidian quick installer as described in this document, the port defaults to 55000.
 - For a centralized Nymi Agent, the enrollment terminal communicates with the Nymi Agent machine on port 9120.
 - For management of access points from the Evidian EAM Management Console, communications occurs on port 3644 on the access point.

Nymi-Evidian Architecture - Wearable Device

The following image represents the components in a Nymi-Evidian solution where the Nymi Band is used as a wearable device.



Enrollment Terminal

The Windows 10 machine where users enroll their Nymi Band.

User Terminal

The workstation on which you install Nymi components and the Evidian Access Manager (EAM) client.

Nymi Band Application

A native Windows application that is used to register biometric, employee ID, and Nymi Band with the enterprise. The Evidian version of the Nymi Band Application integrates directly to the Evidian ecosystem and facilitates communication between NES and the Nymi Bands. The Nymi Connected Worker Platform—Administration

Enterprise Access Management Client

Guide provides more information about the Nymi Band Application.

The client-side Evidian software that provides users with a single sign-on (SSO) experience at the user terminal.

Nymi Enterprise Server

Management software for the Nymi Bands within the Nymi ecosystem. Nymi Enterprise Server (NES) ensures the validity of the hardware in the system. NES includes the NES Administrator Console, a web application that administrators can use to manage the Nymi Bands within the ecosystem.

Evidian Enterprise Access Management Controller

Evidian Enterprise Access Management (EAM) Controller allows centralization of User Access policy definition and audit events. Includes Evidian Enterprise SSO software that provides agile single sign-on (SSO). The Evidian EAM Management Console application provides the interface to perform management activities.

Corporate Directory

An Active Directory server that provides authentication services.

NFC Reader

Captures the NFC UID of the Nymi Band, which is used when an operator performs and SSO authentication event.

BLED112 Dongle

Nymi Band uses Bluetooth Low Energy (BLE) to interact with external components and services. Nymi Band BLE communication does not rely on Bluetooth security. All security is implemented using strong, standard-based cryptography. A BLE adapter (BLED112) is required on the enrollment terminal and user terminals.

Configurations

A Connected Worker Platform environment requires a minimum of two computer systems, a Windows server on which the NES software is installed and a Windows network terminal on which to install the Nymi Band Application.

The following table summarizes the configuration specifications and related user specifications for configuration requirements.

Table 1: Configuration specifications for configurations

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-001	FS-CFG-01	The server-side components can be installed on bare metal within the customer's environment (Supported Operating Systems: Windows Server Windows Server 2016, Windows 2019)	n/a	n/a
URS-029	FS-CFG-02	Create a document that describes the steps to deploy Nymi Agent so that it can achieve 99.9% availability	CS-CFG-02	This information is covered in the Nymi Connected Worker Platform—Deployment Guide.
URS-003	FS-CFG-03	Connected Worker Platform shall be deployable in a way that allows a user's Nymi Band to be enrolled once and able to authenticate to systems in multiple domains.	CS-CFG-03	During NES deployment on the Enterprise window, there exists the option to specify multiple domains on which an which a user can use an authenticated Nymi Band.
URS-003	FS-CFG-04	NES shall require only one AD account for all domains for which there are trust relationships (requires two way trust between domains).	CS-CFG-04	The user account that is specified during NES deployment on the Enterprise window, in the Domain table must be a member of one of the domains in the trust.

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-002	FS-CFG-010	NES and the Nymi Agent are installable on a virtual machine that has connectivity with required components, such as a Domain Controller and AD server. The NES server and Nymi Agent must also have connectivity and access to the user terminals. The Nymi Agent can qualify as a server side component and you can deploy Nymi Agent on a VM.	CS-CFG-010	This functionality is qualified as part of the Product verification and validation testing performed by Nymi.
URS-011	FS-DAT-002	Backup and restore procedures for database protection follow corporate policies.	CS-DAT-002	Configure SQL backups in accordance to corporate policies

URS #	FS #	Functional Specification	CS #	Configuration Specification
<p>URS-027 URS-028</p>	<p>FS-SAF-005</p>	<p>The solution maintains an audit log of Nymi Band user assignments that:</p> <ul style="list-style-type: none"> • Maintains a record of each change (create, update, delete) that is made to a system record, including the date and operator ID. • Is accessible to the enterprise that deployed the Connected Worker Platform solution, without support from Nymi. • Is stored in an intelligible, well-defined format, and be available at any time for review, even past the lifetime of NES. • Supports the addition of fields that you can add to the log later without affecting existing records (e.g. a "reason for change" field could be added later). • Provides the existence of the audit log and a procedure for viewing its administrator. • Ensures that nothing in the Nymi system allows a user to change audit log records after the record has been generated. • Allows MES application to gather key information about the Nymi Band and the username to support the creation of an authentication audit trail. 	<p>CS-SAF-005</p>	<p>Evidian stores audit information in Evidian's SQL sever database.</p>

URS #	FS #	Functional Specification	CS #	Configuration Specification
<p>URS-030 URS-039</p>	<p>FS-APP-001</p>	<p>The Nymi Band Application is a graphical user interface that allows users to enroll a Nymi Band and authenticate their Nymi Band using corporate credentials.</p>	<p>DS-APP-001</p>	<p>After a user logs in to the Nymi Band Application with a valid AD username and password, the application provides users with step-by-step instructions to enroll their Nymi Band. After users have enrolled their Nymi Band, they can use the Nymi Band Application to authenticate the Nymi Band by their Active Directory username and password if active policy on NES is configured to support corporate credential authentication.</p>
<p>URS-019 URS-024</p>	<p>FS-APP-002</p>	<p>The NES Administrator Console is a web-based application that allows administrators to manage NES policies and users. The EAM Console is provided to manage users and their Nymi Bands.</p>	<p>CS-APP-002</p>	<p>The NES Administrator Console is a secure web interface into NES that an NES Administrator accesses from any computer on the network, to manage policies, Nymi Band users and certificates. The EAM Console is a desktop application provided to manage users and Nymi Band assignment.</p>
<p>URS-013</p>	<p>FS-NB-016</p>	<p>Connected Worker Platform solution ensures that the Nymi Band user is valid in Active Directory. Passwords are not stored in the NES database.</p>	<p>CS-NB-016</p>	<p>NES can be configured to check a user's AD user status with every action that they perform with the Nymi Band. If the user is inactive in AD, the user cannot log into the terminal, MES application or perform an e-signature with their Nymi Band. An error is reported and logged.</p>

Configurations

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-014 URS-023	FS-MES-001	The Active Directory user status is queried for every user authentication provided by a Nymi Band to Windows and MES login.	CS-MES-001	The Evidian ESSO server checks Active Directory every time user authentication is provided, and requests the ciphered user password from Active Directory.
URS-004 URS-015	FS-MES-006	Integrate the Nymi API into an MES to support the use of a Nymi Band for login.	CS-MES-006	To implement this functionality, the MES applications make use one of three authentication workflows: Tap and Authenticate, Authenticated Tap, or Tap and Lookup.
URS-016 URS-018	FS-MES-008	The System shall provide automatic user logoff from a Windows session if s/he walks away from a logged in Windows session or the Nymi Band deauthenticates.	CS-MES-008	Log off occurs when the authenticated Nymi Band is no longer within BLE range of the Windows system. This includes when the Nymi Band becomes deauthenticated.

Remote application support via Citrix and RDP

Allows users to access multi-user applications running on a remote RDP-based and Citrix-based environment solution and have multiple user sessions running on it by using an authenticated Nymi Band .

Components in a Centralized Nymi Agent Configuration

A Connected Worker Platform deployment in an environment that uses MES applications that are hosted on an RDP /Citrix server contain the same components as a Connected Worker Platform deployment in a local environment, but some components are configured differently.

The following figure provides an overview of the Connected Worker Platform components in a centralized Nymi Agent environment.

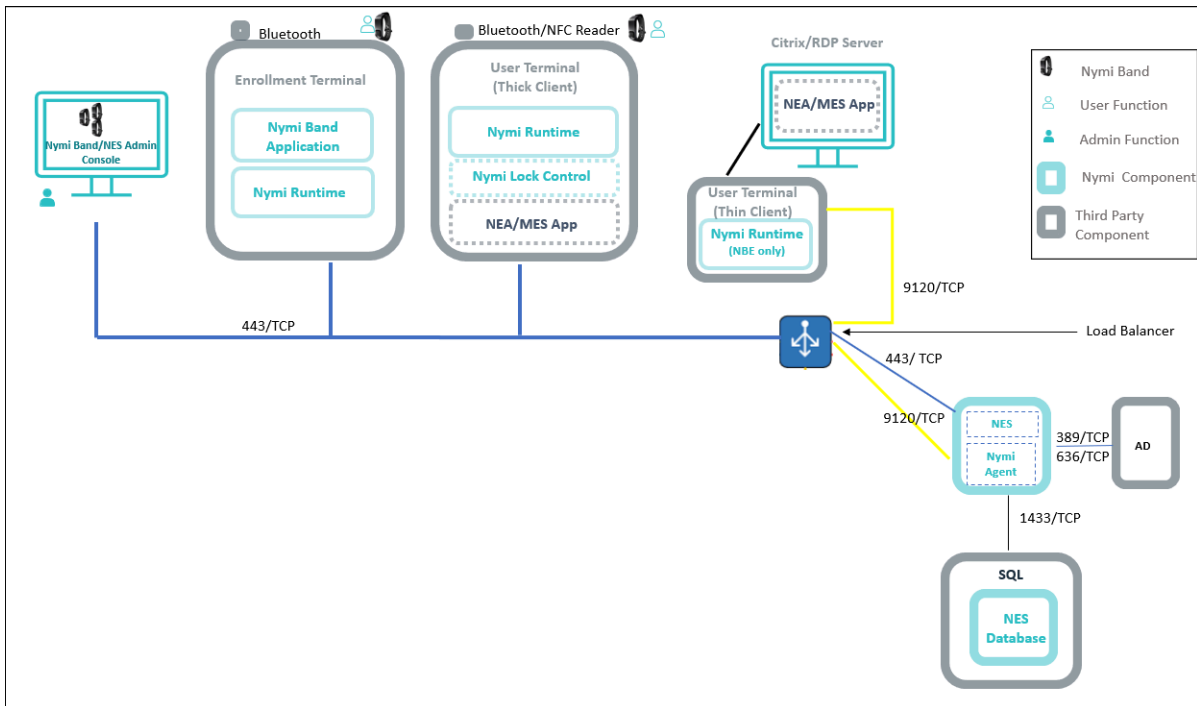


Figure 1: Connected Worker Platform components in a Citrix/RDP environment

The following table summarizes how the component configurations differ in a remote environment. For general information about the Connected Worker Platform components, see the section *Connected Worker Platform Components in a Local Environment*.

Note: While not displayed, it is assumed that NES, Nymi Agent, and the CWP Backend components are clustered.

Table 2: Connected Worker Platform Components

Component	Description
Enrollment Terminal	Windows 10 endpoint that users access to enroll their Nymi Band. Nymi recommends that you use a thick client for the enrollment terminal.
User Terminal (thick client)	<p>A Windows 10 endpoint that users use to:</p> <ul style="list-style-type: none"> Access a remote session host and launch an NEA that is installed on a remote session host. Use Nymi Lock Control to lock and unlock the desktop. <p>When you install Nymi Runtime on the user terminal, only install the Nymi Bluetooth Endpoint component. The <i>nbe.toml</i> file defines the location of the centralized Nymi Agent. The Nymi Bluetooth Endpoint service communicates with the Nymi Agent service over websocket port 9120.</p>

Component	Description
User Terminal (thin client)	<p>An endpoint that users use to:</p> <ul style="list-style-type: none"> • Access a remote session host and launch an NEA that is installed on a remote session host. • Use Nymi Lock Control to lock and unlock the remote or virtual desktop. <p>When you install Nymi Runtime on the user terminal, only install the Nymi Bluetooth Endpoint component. The <i>nbe.toml</i> file defines the location of the centralized Nymi Agent. The Nymi Bluetooth Endpoint service communicates with the Nymi Agent service over websocket port 9120.</p>
User Terminal (iOS Device)	<p>An iPad endpoint that users use to:</p> <ul style="list-style-type: none"> • Perform authentication tasks in a web-based Nymi-enabled Application(NEA). • Perform authentication tasks in a native iOS NEA. <p>When you install Nymi Runtime on the user terminal, only install the Nymi Bluetooth Endpoint component. Configuration settings defines the location of the centralized Nymi Agent. The Nymi Bluetooth Endpoint service communicates with the Nymi Agent service over websocket port 9120.</p> <p>For web-based and native iOS NEAs that are accessed by an iOS device, the NEA defines the Nymi Agent host and communication port number. The <i>Nymi SDK Developer Guide—Webapi(Windows)</i> provides more information.</p>
Nymi Application	<p>Required on the iOS devices to perform authentication tasks. Nymi Application is a Nymi-supplied native iOS application that:</p> <ul style="list-style-type: none"> • Embeds the Nymi Bluetooth Endpoint application, which provides an interface between the native Bluetooth Adapter (BLE) and the Nymi Agent. • Detects an intent to perform an authentication task with a Nymi Band (a tap) and passes the request to the NEA.
Citrix/RDP server	<p>Remote session host. In Citrix and RDP environments, the user uses a thin client to connect to a remote session host and then launches an NEA that is installed on a remote session host. Different user sessions run their own NEA instance.</p>

Component	Description
Centralized Nymi Agent	Nymi Runtime component that you install in a central location on a single machine or a cluster of two or more machines that is accessible to all user terminals, for example on the server with the NES application. Provides BLE management, manages operations and message routing. Facilitates communication between NEAs and the Nymi Band, and maintains knowledge of the Nymi Band presence and authenticated states.

Connected Worker Platform Deployment in RDP Environment

The Connected Worker Platform support deployments in RDP Environments.

The following figure provides an overview of the Connected Worker Platform components that are installed in an RDP environment.

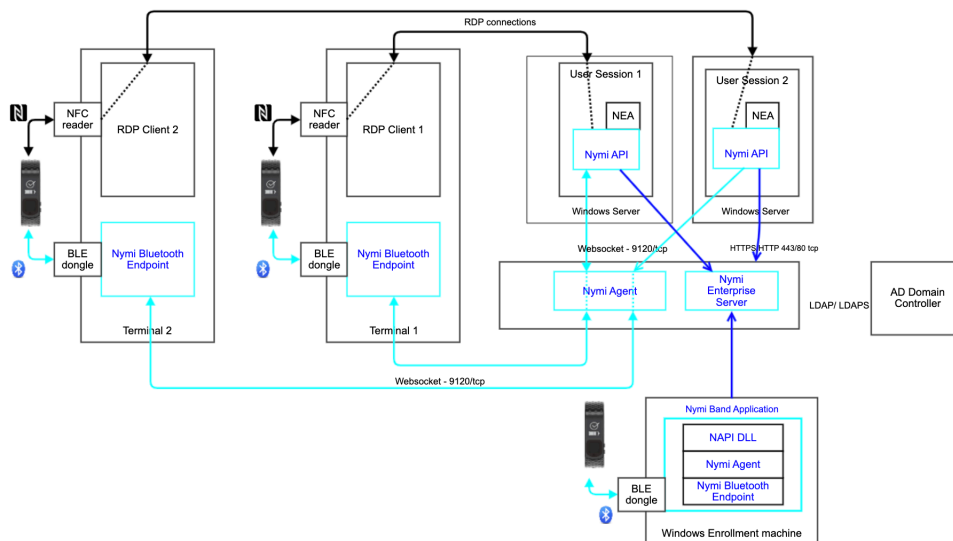


Figure 2: Connected Worker Platform components in a RDP environment

In RDP environments, the user launches an NEA that is installed on a remote session host. Different user sessions run their own NEA instance. In this configuration the NEA communicates with a centralized Nymi Agent, which is installed on a single machine or a cluster of two or more machines in the environment.

This figure shows the following configuration:

- The Nymi Bluetooth Endpoint is installed on each RDP client. The Nymi Bluetooth Endpoint service on each RDP client communicates with the Nymi Agent service, which is installed on a separate host, on websocket port 9120.
- The Nymi Agent is installed in a central location that is accessible to all user terminals, for example on the NES server.
- An *nbe.toml* file is installed on the RDP client, and is configured with the location of the Nymi Agent.
- An NEA runs on the RDP server and includes the *nymi_api* for communicating with Nymi Bands.

Citrix and RDP specifications

The following table summarizes the configuration specifications and related user specifications for remote application support requirements.

Table 3: Configuration specifications for remote application support

URS #	FS #	Functional Specification	CS #	Design / Configuration Specification
URS-020 URS-021 URS-022	FS-RDP-005	Administrators can install NEAs on Windows 10 thin clients running Citrix (compatibility requirement).	CS-RDP-005	NEAs installed on the thin client require the <i>nymi_api.dll</i> file. The <i>nymi_api.dll</i> must be compatible with Windows 10 64-bit.

Hardware Design

Nymi Band 3.0

The Nymi Band wearable is a biometric device used by companies to increase security and improve workflows.

Nymi Band Physical Features

The following figures show the front and back of the Nymi Band.

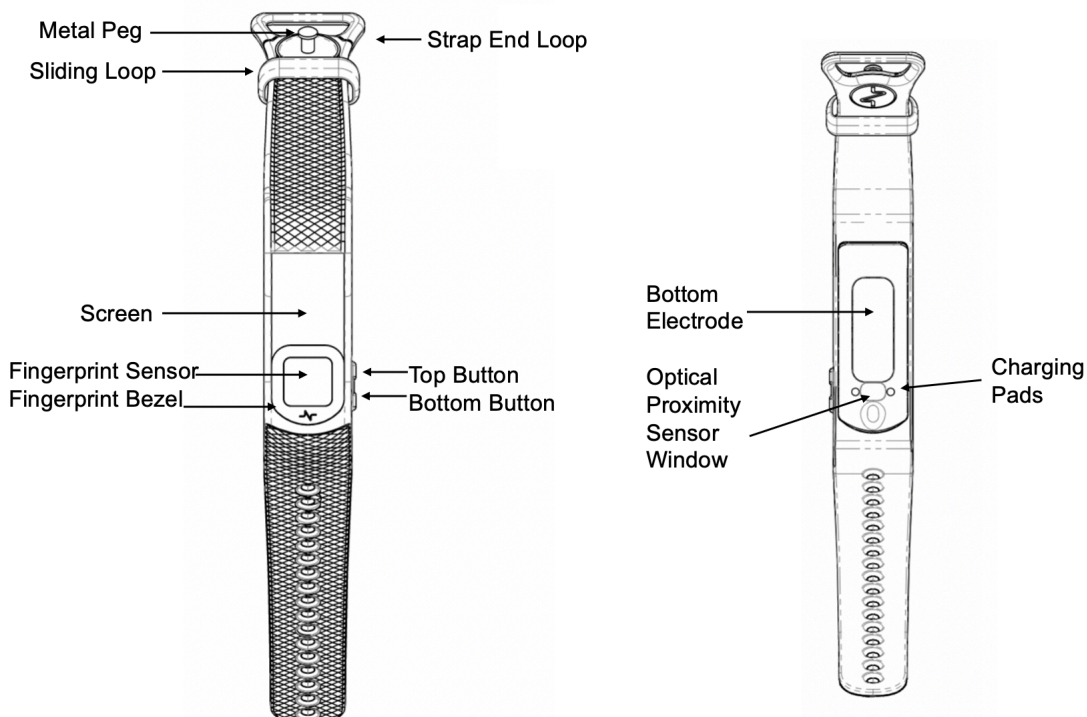


Figure 3: Nymi Band front and back

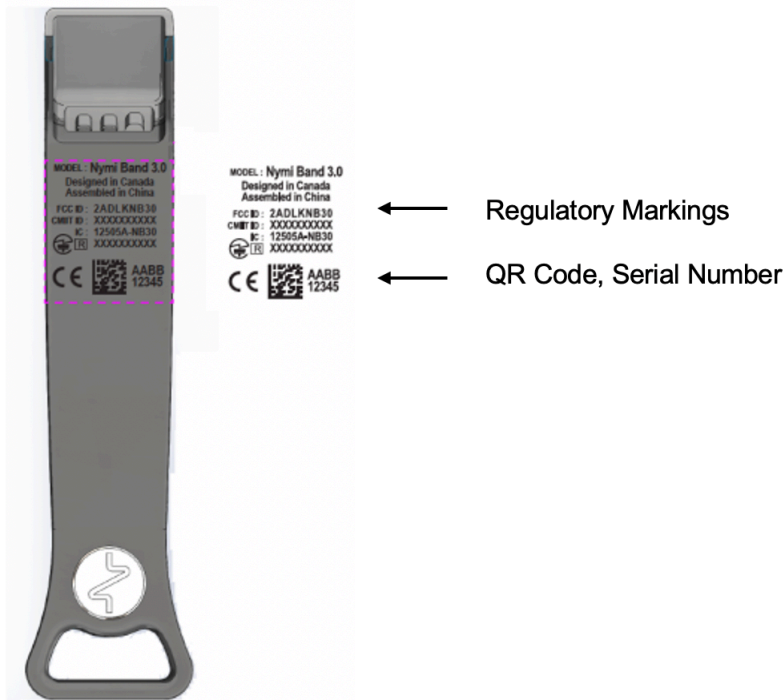


Figure 4: Nymi Band Strap

The Nymi Band is made up of the following main components:

- Screen—Visual interface on the face of the Nymi Band.
- Fingerprint Sensor—Fingerprint detection pad on the face of the Nymi Band.
- Fingerprint Bezel— Electrode that is used to capture the electrocardiogram (ECG) signal during authentication.
- Top and Bottom Buttons—Turns on the Nymi Band and allows users to navigate through screens. The buttons are also used to access administrative functions while the Nymi Band is charging.
- Charging Pads—Makes contact with the pins of the charger.
- Optical Proximity Sensor Window—Sensor that detects if the Nymi Band is on the wrist of the user.
- Bottom Electrode—Electrode that is used to capture the ECG signal during authentication. Also used to capacitively sense that the Nymi Band is on the user's wrist.
- Metal Peg—Peg that is used to secure the Nymi Band strap while it is on the wrist of the user.
- Sliding Loop—Loop used to keep any excess Nymi Band strap in place while it is on the wrist of the user.
- Strap End Loop—The loop integrated into the strap that helps the user get a good fit on their wrist. The wearer uses the strap loop in the same way that they would use a watch buckle.

The Nymi Band strap contains regulatory markings, a QR code, and the Nymi Band serial number. When scanned, the QR code displays the serial number.

Note: The Nymi Band is shipped with a protective film on the optical sensor and bottom electrode. Remove the protective film before use.

Nymi Band Functionality

Configuration specifications outlining setting, parameters, tools or methods that are used to set required options, any dependencies or impacts on other systems, infrastructure items such as operating systems and layered software, and any security settings.

Table 4: Configuration specifications for the computer system

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-010 URS-012	FS-NB-012	The biometric information that is stored on the Nymi Band consists of a fingerprint template, which is securely stored locally on the micro-controller unit (MCU). The biometric information is permanently deleted when the user perform a delete user data operation on their Nymi Band. No biometric information is stored in the server and the fingerprint template never leaves the Nymi Band.	CS-NB-012	The Nymi Band uses an FPC 1321 fingerprint sensor FPC 2050 drive IC. The FPC 1321 is a capacitive fingerprint sensor that uses arrays of tiny capacitor circuits to capture the fingerprint. It has a scratch-resistant coating and is made by Fingerprints Cards AB (1). Physical communication lines (USB, serial) are disabled on the MCU. If the MCU were physically removed from the Nymi Band, physical communication lines remain disabled ensuring no access to MCU memory by design.
URS-009	FS-BAT-005	Nymi Band contains a rechargeable battery and Nymi performs standard benchmark battery life tests that can be used to provide estimations to customers and compare battery life between different firmware releases.	CS-NB-013	The Nymi Band features a rechargeable 48 mAh lithium polymer battery that is charged by using a Nymi-provided charging cradle. The battery life is continually monitored and benchmarked in every subsequent release to meet the requirement.

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-007	FS-BAT-001	The Nymi Band supports a 3-day battery life, assuming 10-hour shifts, 900 taps total (300 per shift) with one shift per day.	CS-BAT-001	The Nymi Band supports a 3-day battery life, assuming 10-hour shifts, 900 taps total (300 per shift) with one shift per day.
URS-026	FS-PHY-007	The Nymi Band has a display which provides information to the user.	CS-PHY-007	Display information such as battery life, band label, and authentication status (authenticated/deauthenticated).

Inputs and Outputs

Input and output format may include digital and/or analog signals. External equipment should consider accuracy, isolation, range of current and voltage, type and numbers of interface cards and timing.

Table 5: Configuration specifications for inputs and outputs

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-030	FS-NB-015	Connected Worker Platform allows authentication to the Nymi Band by biometrics or an external authenticator, such as Active Directory.	CS-NB-015	NES Administrator can configure the default policy to allow an External Authenticator for authentication.

Environment

The operating environments for hardware shall be defined to include use, temperature, humidity, external interface, physical security, shielding against radio frequency, electro-magnetic or US interfaces, hardening against physical hazards such as dust or vibration.

Table 6: Configuration specifications for the environment

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-005	FS-ENV-001	The Nymi Band maintains biocompatibility and chemical resistance.	CS-SAF-001	n/a

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-005	FS-ENV-002	<ul style="list-style-type: none"> The Nymi Band is certified by: <ul style="list-style-type: none"> FCC (United States) CE (Europe) IC (Canada) The Nymi Band is made of hypoallergenic material. 	CS-SAF-002	n/a
URS-008	FS-ENV-003	The Nymi Band can be sanitized with an alcohol wipe or spray and hydrogen peroxide.	CS-SAF-003	The external surface of the Nymi Band shall be cleanable daily by soap and brush cleaning, hydrogen peroxide, 70% isopropanol wipe or 70% isopropanol submersion without any negative impact on reliability or functionality over a 3-year span. The external surface of the Nymi Band shall be durable to daily cleaning by soap and brush, 70% isopropanol wipe or 70% isopropanol submersion without any objectionable degradation in surface finish over a 3-year span.
URS-006 URS-017	FS-NB-019	The Nymi Band: <ul style="list-style-type: none"> NFC antennae supports a read-range that allows detection by an NFC reader through protective clothing and plexiglass coverings. Bluetooth antennae supports a read-range that allows detection by the Bluegiga Bluetooth adapter through protective clothing. 	CS-NB-001	This functionality is qualified as part of the QA and user acceptance testing process for the Connected Worker Platform solution.

URS #	FS #	Functional Specification	CS #	Configuration Specification
URS-025	FS-BAT-006	Users can accurately tell whether their Nymi Band's battery is Low, Medium, or High from the battery indicator on the screen.	CS-BAT-006	The Nymi Band hardware utilizes a fuel gauge chip which tracks the state of charge of the battery to a roughly 1% accuracy. This state of charge is read in firmware and mapped out to a battery charge indicator on the band's screen, which shows 4 levels of charge (4 bars, plus empty battery).
URS-040	FS-ENV-005	The solution provides a configurable option to disable haptic feedback on Nymi Bands to maintain compliance with the ANSI 12.12.03.2011 standard.	CS-ENV-005	An option exists in NES Policies to disable haptic feedback. By default the Haptic Feedback option is enabled. When you disable haptic feedback, and enroll a user, the Nymi Band does not provide haptic feedback after enrollment completes and does not signal to the user the deauthentication of the Nymi Band.

NES enrollment

NES supports uses Nymi Token Service (NTS) to manage certificates during enrollment.

The following table summarizes the design and configuration specifications and related user specifications for enrollment requirements.

Table 7: Design and configuration specifications for enrollment

URS #	FS #	Functional Specification	CS #	Design / Configuration Specification
URS-042	FS-ENR-009	The enrollment process provides the user with a statement of usage and consent, and the enroll cannot proceed until the user acknowledges the statement.	CS-ENR-015	This is an unconfigurable option in the Nymi Band Application and occurs for every enrollment.
URS-043	FS-APP-004	The solution provides configurable options to a user to use the Nymi Band Application to enroll to another Nymi Band when a Nymi Band to user association already exists in the Nymi Enterprise Server and the Evidian EAM Controller.	CS-APP-005	NES policies include options that allow users to re-enroll their own Nymi Band or any active Nymi Band without the need for a CWP Administrator to log in to the NES Administrator Console and the Evidian EAM Management Console and delete the Nymi Band association with the user.

Interfaces

Nymi interfaces include application interfaces, FIDO2 support, NFC reader support, and remote application support.

Application Interfaces

Table 8: Design and configuration specifications for enrollment

URS #	FS #	Functional Specification	CS #	Design / Configuration Specification
URS-039	FS-APP-003	The solution provides the Nymi Band Application to assign a single user to a Nymi Band.	DS-APP-001	Nymi provides the Nymi Band Application, which facilitates enrollment for Evidian and Nymi-direct integration environments during one enrollment. The Nymi Band Application will use appropriate Evidian WGSS API methods to populate the both Evidian database and NES with the Nymi Band Application and user data.

Glossary

Definitions/acronyms used throughout this document are defined below.

Table 9: Glossary

Acronym	Definition
AD	Active Directory. Directory service for domain networks.
AD LDS	Active Directory Lightweight Directory Services. Directory service for domain networks.
IAM	Identity Access Management
SSO	Single Sign-On
MES	Manufacturing Execution System
CWP	Connected Worker Platform
EAM	Enterprise Access Management
ESSO	Enterprise Single Sign on
RFID	Radio-frequency identification
Solution	All components that enable biometric authentication, including Nymi Enterprise Edition components , Evidian components and the MES.
Class A	Class A clean rooms are for high-risk operations (eg. filling zone, stopper bowls, open ampoules and vials and, making aseptic connections). Class A environments are sterile environments
Class B	Class B Clean rooms provide the background environment for grade A zone items needing aseptic preparation and filling.
Class D	Environments for less critical tasks in the manufacturing process.
21 CFR Part 11	Part of Title 21 of the Code of Federal Regulations that establishes the United States Food and Drug Administration regulations on electronic records and electronic signatures.

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