

PERSONNEL MANAGEMENT KIOSK

FREQUENTLY ASKED QUESTIONS

NETWORK

| | |
|---|---|
| Can it support Wifi? | Yes, it supports 2.4 ghz wifi, but does not support 5 ghz. We will supply a document where it provides direction on how to exit to the android settings. |
| Does it have LAN connectivity? | Yes, it can be plugged in to LAN. |
| Does it use the network to do face recognition? | No, the faces are stored on the local system. |
| How do you set the Wifi password? | Attach a mouse, right click 3 times, enter password and it will exit to Android tablet desktop. Then, click settings, network, and join the network. |
| Is it SIM Card capable - LTE? | You would need to introduce an external 4G router such as Cradlepoint for this. |
| If I have two devices how are the faces shared between devices? | Meridian is currently developing this software. It will require MzeroManage subscriptions. |
| How are the units managed? | There is a centralized software called MzeroManage, it primarily receives access results for those who are granted access. We are also developing a database which will allow propagation of face recognition and importing of the face recognition database. |
| How does the infrastructure work? | There are two infrastructure possibilities for MzeroManage—hosted and on premises. In both cases the device makes a TCP connection and HTTPS connections to our endpoint server where the data is collected and managed. The TCP port is 3000 outbound, and HTTPS port is 443 outbound. In the on-premise version the data stays within your home environment. Meridian will provide you a VM (virtual machine in OVF format) which is available for purchase in perpetual license (support is 20% annually) or the hosted version is a SaaS license. |

ACCURACY

| | |
|---|---|
| What is the temperature variance? | For the most part the variance is +/- 0.9° F. These devices shouldn't be used to make a medical diagnosis. |
| What is the accuracy of the thermal imaging camera? | The 1:1 comparison recognition rate is more than 99.7%, the 1:N comparison recognition rate is more than 97.7% @ 0.1% misrecognition rate, and the live detection accuracy rate is 98.3% @ 0.1% misrejection rate. Face recognition pass speed is less than 1 second. Supports accurate face recognition and comparison while wearing mask. |

BUILDING ACCESS

| | |
|--|--|
| Can it connect to my building security? | It depends. The Personnel Management Kiosk supports MiFare a lesser used access card type in North America. At the bottom of the unit it has what is called a weigand pigtail connector that will connect to many security systems and door access systems. HID Prox (most common) is not supported. |
| Can it open a door? | Yes. There is a "Dry Contact Relay" which closes a circuit which can trigger a door or a gate, this is separate from the building security (weigand pigtail) referenced above. |
| How does the card and face work together? | The system supports MiFare cards and can be combined with face recognition and temperature verification. |
| Who is allowed through? | There are two modes—stranger mode where anyone with normal temperature can pass, and a recognition mode where it will only allow recognized employees to pass through. Stranger mode can also recognize employees but anyone can pass provided they don't have a fever. |
| Is it HID Prox compatible? | Support for HID Prox will be available in future releases. |
| Does the system support ProxyPoint Plus (HID card readers)? | The device comes with an optional integrated contactless reader with specific media support. The similarities between ProxyPoint and the integrated readers are: MiFare Supported: MifareS50, MifareS70, FM11RF08 series card, and the physical card number of protocol compliant ISO/IEC14443A. Differences are that the ProxyPoint Plus has that the optional contactless reader option doesn't support clock interface, ProxCard/ISOProx/DuoProx/MicroProx/ProxCard Plus. Additionally media is limited to under 64 bits. |
| If someone scans red, will it lock down all card access to the building? | Not at this time, it will just deny access to the door. |

UPGRADES

| | |
|---|--|
| Do they need any type of maintenance or calibration or simply a software update periodically? | We may recommend software updates to keep up with the latest features or security patches but it is expected that the device can operate on its own without any updates for a long time. |
| Can I upgrade the software? | Currently only locally with a USB drive or transfer over the network through the browser. MzeroManage will be able to push the update through the central portal. |
| Is there a charge to update the software? | Patches, bug fixes, and usual updates will be available at no cost. |

OPERATING ENVIRONMENT

| | |
|---|--|
| Can it work outside? | Not for outdoor. Direct sunlight would majorly impact performance |
| My factory is very hot in the summer does this impact performance | There are some means to manually calibrate in different conditions with a setting in the menu. |

COMPLIANCE

| | |
|---|--|
| Is it FDA compliant? | This device is not FDA-cleared or approved. This temperature device should not be solely or primarily relied upon to diagnose or exclude a diagnosis of COVID-19, or any other disease or health condition. Elevated body temperature in the context of use should be confirmed with secondary evaluation methods, such as a non-contact infrared thermometer or clinical grade contact thermometer. |
| Is it HIPAA compliant? | The Personnel Management Solution has not been validated against HIPAA. The Personally Identifiable information is Guests: Picture (if enabled) + temperature + time. For Recognition mode: Picture + Employee Number + Temperature Reading + Employee Name + Time of entry. The intent of the access kiosk is for building access / security, it's not intended to be used for patient diagnosis. Similarly, it does not manage or create EHR System, it only records access granted events, date and time of people with a nominal temperature. The system will not log access events for people who were turned away with a non-nominal temperature. Face recognition would recognize known people, but only if they had been setup with an employee ID, name, and photo for face recognition in advance. If there is no face database no name, just an entry time and a temperature. This would be the same amount of information as you would get from a security camera or door access system. |
| Is it FCC compliant? | Yes, the applicable standard is ANSI C63.4- 2014 (Information Technology Equipment) it has been assigned against CISPR PUB. 222, FCC Part 15 Subpart B and has the FCC mark . TAF testing laboratory 1439. Attestation of conformity available on request. |
| Is the unit CE approved? | Directive(s) REDS 2014/53/EU , Attestation number 2003118. Applicable standards ETSI EN 300 328 V2.1.1 (2016); EN 62311:2008; ETSI EN 301 489-1 V2.1.1 (2017); ETSI EN 301 489-17 V3.1.1. Attestation of Conformity available on request. |
| What certifications does it have? | The device has FCC and CE certifications. |
| SOC 2 compliant? | If you leverage Meridian's central management server, Meridian's hosting facility is SOC 1 & 2 Compliant, this would include data once at rest. |
| Is there a setting that does not store the temperatures? | Not on the kiosk side it will record temperature and time of all who were approved but these would only be for nominal temperatures, on the Manage side if this is required we can add additional code to opt-out of storage of this data on the MzeroManage. Non-nominal temperatures are never stored (those who are turned away). Only 1GB of scan history is retained on the device. |
| Is it UL Certified? | We are discussing adding a ULc power brick (the only source of power) to the device, the one it comes with by default is just CE only. Anything behind these power bricks are outside the scope of UL/CE. |
| Where do we send it to be re-calibrated or certified? Is there on-site service? | Settings Screen -> Temperature Detection Settings -> Compensation temperature. The default value is 0.3 + for normal conditions. You can adjust the compensation level and switch it to - value to compensate with software. |
| Can you set up the kiosk so that it automatically backs up to the server? | When the next version of MzeroManage is released, it will have an online editing option for MzeroManage, where data is centralized and propagates for all your devices. |
| Is it NDAA compliant on thermal chip? | The technology used in this product is not sourced from any of the companies defined in FAC Number 2020-05/03-30-2020 Part 4 subpart 4.21 Section 4.2101 pertaining to Subpart 4.21 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. |

| OPERATION | |
|--|--|
| Can it notify when someone has a fever? | Currently it has a RED LED that blinks at the top with a message about denying access. |
| Does it save a picture of the employee? | Yes, this cannot be disabled. It will be saved to the CF card |
| Does it save a picture of a stranger? | By default saving pictures of the strangers is OFF in Settings -> Temperature Detection Settings -> Stranger Record OFF |
| How does it handle facial recognition? | It stores a photo of the face in a database, it uses Infrared technology to illuminate the face and does analysis on the facial features. In addition to recognizing the features it also needs to be a valid temperature so it must be a "living body". |
| What do the LED indicator lights do? | The LED light on the head unit lights up green for a person who passes the facial recognition and temperature check. Alternatively, it lights up red for a stranger or high temperature subject. The LED on the base is not connected to the device, it is just for aesthetics at this time. |
| Is this able to serve as a clock in, clock out function? | Yes, with Mzero Manage. Each time you scan at a specific kiosk the kiosk ID and time is logged. If face recognition is used then you also have the employee ID. If you have a different kiosk at the entry and another kiosk at the exit you can calculate the entry and exit times as the working hours (clock in clock out) and the difference between those two. A specific report would have to be developed on MzeroManage to relate timestamps between in kiosks and out kiosks. We might have to have a naming convention for the terminal IDs so we can denote which is exit and which one is entry in Manage. Anyone who forgets to clock out will be automatically clocked out at midnight and that would have to be reconciled at a later date. |
| Is the kiosk able to record people that are turned away? | Yes. |
| Is the temperature reading displayable on the screen? | Yes, it is displayed on the screen, you cannot turn it off. |
| Will it hold multiple profiles per person—beard, glasses, no glasses, etc? | One photo per person currently. |
| Could the kiosk assist with general check-ins without the temperature check? | The system is purpose-built to recognize known individuals such as employees and scan them or guests. The system will not be able to recognize guests. If your meetings are with only known stored group of individuals such as employees then it may be possible, with software development, to integrate this with a schedule system and notify a meeting organizer. |
| How are profiles loaded in the system? Is there a bulk load option? | See user manual and/or video tutorials. |
| Where do they take the temperature from—forehead or tear ducts? | It first detects the face with face detection then takes an IR temperature sensing, it will take the warmest temperature on the face be it the center of the head or the tear ducts or otherwise. |
| Can the kiosk operate in other languages? | The kiosk supports 16 languages including English, simplified Chinese, traditional Chinese, Italian, polish, German, Russian, Thai, Spanish, French, Arabic, Korean, Vietnamese, Indonesian, Czech and Romanian. |

SECURITY

| | |
|---|--|
| Is the data secure? | We recommend installing a small concentrator device in your network to secure data between the device (s) inside your LAN and to the central server in TLS 1.3. |
| Does your Solution support TLS 1.3? | Yes. When MzeroManage's Cloud hosting is used, we now support TLS v1.3 for the personnel callback data channel. For MzeroCloud on premises, the client would need to purchase SSL certificates and register a domain. |
| What is the security on the device where this information cannot be stolen? | Pictures at time of entry of employees that were recognized, pictures of strangers will only be captured if the setting for capture strangers is enabled (disabled by default). The temperature at time of entry, the date and time of entry, the employee database (pictures and employee IDs). We recommend physical deterrents if this is a concern, such as a tilt/tamper alarm or more securely bolting the unit down. Data retention timeframe on the tablet is TBD. |
| What security exists to prevent people from hacking in and stealing information? | We strongly recommend the device not be on public wifi, LAN (wired) is better. To prevent theft of the actual device, you may need to add deterrents such as securing it to the wall well. |
| Can you bypass the biometrics? | You can put it in stranger mode so it doesn't need to use face biometrics. As for if they can `cheat` the system it is possible, but also it takes a photo at the time you enter, so you would be able to tell if you review the photos. |
| How heavy is it? | The kiosks weight is 35 lbs with the base. |
| Is data stored in the cloud? | Data is stored on the device only unless MzeroManage is configured. |
| How is security handled on the devices? Is the data encrypted? If so, how and what level? What happens if the device is stolen? | The devices are password protected so you cannot gain access unless you have both a physical mouse/keyboard attached plus the password. The CF card where data is stored is part of the integrated circuit board so it would not be easily accessible due to it being physically integrated. When enabled, MzeroManage will receive callback information from the device that has the picture of the employee at time of entry, this is transmitted via TLSv1.3 with strong encryption Ciphers. Meridian is currently developing 2-way synchronization of the employee database and settings between on premises devices and MzeroManage. When this solution is complete it may require an on-premises concentrator to properly secure and route traffic over TLSv1.3 to our cloud servers. More information will be released on this as it becomes available. The CF card is not encrypted. |
| Where is data stored? Is it cloud based? If so, how is privacy handled? | Data is stored on the CF Card of the device. If MzeroManage is utilized this is a cloud based service or optional on premise service. When enabled, the data will be securely transmitted from the device to the central MzeroManage via encryption. For the cloud service the data is stored in a private database in an SOC1/SOC2 compliant VPC datacenter in VA. Access to the data is limited to authorized users for the purpose of support and maintenance. |
| How is data stored in the cloud? | Data is stored on the device only unless MzeroManage is configured. |

INTEROPERABILITY

| | |
|--|---|
| Can it communicate with Track or Cross point? | This would be some kind of customization needed between MzeroManage and the endpoint, so we would need an agreement to develop such a connection |
| Does it integrate with a company's directory services to handle employee identification? | If you are planning to use the face recognition feature then their directory would need to have medium to high resolution photos. We would have to modify our software to integrate, probably this is an on premises solution. |
| Is there an integration with Kronos? | This would be some kind of customization needed between MzeroManage and the endpoint, so we would need an agreement to develop such a connection. |
| Can it integrate with medical records systems such as EPIC, Cerner, etc? | This would be some kind of customization needed between MzeroManage and the endpoint, so we would need an agreement to develop such a connection. To know if the person that passed was known, they would have had to have been previously set up in the system and their face would have matched in either mode. If those things are true we may be able to match the ID and Name to a patient record in Epic or other similar software. Comparing data collected with Epic we can reference this website: https://uscdi.epic.com/ and our user guide under the Data Fields section. The assumption is we would need to have made a recognition of the Patient by demographics, then it might be a vital sign. The system only collects vital signs of individuals whose body temperatures were nominal. Anyone turned away was not recorded so we won't be able to connect that occurrence to Epic. |
| Is there an integration with Honeywell Enterprise Building Integrator? | There is currently a Wiegand interface, Dry Contact Interface and Software Interfaces that are possible. This would need to be evaluated. It is more complicated if there is access cards also involved. |
| Will iPads be able to be used for these kiosks now or in the future? | No. This Android device is purpose built with several integrated and off-board peripherals that are not available on the iPad platform. |

CONFIGURATION

| | |
|--|---|
| How do we get into the device to load photos, configure settings etc. It is a web based interface? | This will be documented in the configuration guide. Attach a mouse and press center button, use the on screen keyboard to enter the password, click Face Database, take a picture of the employee you are saving to the face recognition database and set name and employee ID. This process takes about 15-30 seconds. Details on the centralized web database management where you can use and import employee images that propagate to the devices is yet to be completed, we will have details shortly. It will be web-based. |
| Can you toggle the over temperature alarm on and off? | With the alert OFF it says "Abnormal temperature + red light" in a friendly voice. With the alert ON in settings it goes into a siren sound. The alert is an alarm sound it's slightly louder than the voices. |

PERFORMANCE

| | |
|---|--|
| How long does it take to recognize a face? | With a small database 1-2 seconds, if you add 1000's of face it may take longer. |
| How many faces can it recognize? | 20,000 |
| How many logs can be stored and for how long? | 1 GB of data is logged with an image. There is no specific time frame, only a size. |
| Can you do facial recognition with and without masks? | Yes, you can turn on a mode which will enforce wearing of a mask (i.e. medical mask). This enforcement mode is optional. |
| How many devices per employee do you recommend? | A single device can scan approximately 10 employees per minute assuming social distancing rules are respected. Your needs may vary based on the total number of employees you have and the rate at which the employees enter at the facilities entry points over a given period of time it may require 2 or more at each entrance. |
| What is the life expectancy? | 5 years |

CUSTOMIZATION

| | |
|--|---|
| Can I change the voice prompts or and instructions when access is denied or granted? | With MOQ 100 we can customize for free the messages and prompts, the customer needs to send pre-recorded MP4 files of the new voice prompts |
| Can you change the attract loop animation on the initial screen? | We plan to provide a method and tool for doing so within existing user interface design constraints of text area and font size. We are still working out the details on this. |

BADGE

| | |
|---|---|
| Can that be turned off and badge scanning be used in its place? | <p>The badge could work independently of the system. The screen can also operate for temperature only, it has a dry contact relay out (2-wire) that is tripped when a guest (or optionally a recognized employee) has a nominal temperature. The assumption is that your security team can use the dry contact loop with your existing badge scanning so that both conditions must be true to open the door. You would need to verify this with your security access system supplier.</p> <p>Please note that systems typically come without badge readers unless ordered with one.</p> |
|---|---|

REPORTS

| | |
|--|---|
| Is the temperature information logged on the system? | Information is Guests: Picture (if enabled) + temperature + time. For Recognition mode: Picture + Employee Number + Temperature Reading + Employee Name + Time of entry The intent of the access kiosk is for building access / security. |
| Can we get a record of abnormal temperature scans? | Yes. |
| Can a report be pulled remotely? | For MzeroManage subscribers, the report is available online. For non-subscribers, it is available on the kiosk. |

SERVER SOFTWARE

| | |
|--|--|
| Can it log when someone passes the scan? | It keeps a record on the device. |
| Does it log when someone is turned away? | Yes. |
| Does it record the face of the person passing? | Yes if you turn that feature on, you may want to check local laws if that's ok. |
| Is this cloud based or on-premise | It can be both but on-premise needs to be priced |
| What can MzeroManage do right now? | It can record Entry time, the temperature and terminal ID for all allowed guests, if in recognition mode it will also log employee name and employee number along with the other readings. A picture is also saved in both modes if you enable that feature. |
| Can we import faces from a large database of existing pictures | This is somewhat of a custom integration but is on our product roadmap. |
| Can we open the door remotely? | This feature is currently in progress with plans to be added to MzeroManage in the near term. |
| Can we reboot remotely? | This feature is currently in progress with plans to be added to MzeroManage in the near term. |

MAINTENANCE

| | |
|--|---|
| Do these devices need to be serviced at all? | We recommend the temperature sensor be verified periodically, you can use the offset in the configurations to adjust for any variances. This is more likely if your indoor ambient temperature is near the top or bottom of the operating limits or there are seasonal changes. |
|--|---|

NOTIFICATIONS

| | |
|--|--|
| Can the kiosk notify a person that has a high temperature? | Yes. |
| Can the kiosk use cellular connections to notify a person that has a high temperature? | As it stands, we don't have a feature to notify when it's high temperature. |
| Can it let HR know through a notification that someone had a high temperature? | Currently, only the alert (sound and lights) as well as denied access to a door or gate if integrated with a door or gate. |

EXPORT

Can you extract/export the information that's been captured on the unit on a daily basis with the current set up?

There are two ways:

1. Log into MzeroManage (Enterprise Portal) Go to the reports tab (left pane) and run the Personnel report. In the right pane select the date range and set the size to 10,000, then execute. When viewing the report there is a CSV export option.
2. We have an API where we can provide access to export using a programming interface.

Can I export data from the PMK if I don't have MzeroManage?

As of Version 1.7.0.1 You can attach an CF Card by USB adaptor and go into the Pass record menu and click Export it will copy export records onto an external CF card. You must do this for each device separately.

WINDOWS vs. ANDROID

If a customer orders the Android temp kiosks today, can they be upgraded to Windows later or should they wait to order the Windows model?

No, they cannot be interchanged. The Windows model will have a different CPU, motherboard, and operating system software. Only the peripherals may be common.

EXPANDABILITY

Can the kiosks serve as a virtual receptionist (be able to notify that someone is in their waiting room)?

The system is purpose built to recognize known individuals such as Employees and scan them or guests. The system will not be able to recognize guests. If your meetings are with only known stored group of individuals such as Employees then it may be possible, with software development, to integrate this with a schedule system and notify a meeting organizer.

Are the APIs available to expand further functionality of the kiosk?

Not yet. Meridian will publish an API soon.

RELAY OUTPUT

Is the relay Form-C?

Relay is a dry contact and supports up to 120vac/vdc 1a.

What is the function of each relay mode?

0: indicates that the mode is not automatically closed, i.e. the relay is not automatically closed when the relay is opened
1: indicates auto-closed mode (high valid - default low, then high X seconds, , last low) i.e. x seconds of delay X automatically closes after the relay is opened
2: indicates auto-closed mode (low effective - default low, then high X seconds, , last low) i.e. x seconds of delay X automatically closes after the relay is opened

MZEROMANAGE

| | |
|---|--|
| Is there a report that can be pulled of employees and their temps? | For MzeroManage we will have a report of scans and temperatures, we also record non-nominal temperatures as long as they have version 1.0.7.1 or better. |
| Can a report be pulled remotely or is it only logged on the kiosk device? | For MzeroManage subscribers the report is available online, for non-subscribers it is available on the kiosk. |
| Does the device and its software support MDM Management, i.e. Airwatch and will it allow multiple management platforms—the MzeroManage and the MDM both? | No. This is not an off-the-shelf android OS, it has been customized. MzeroManage will provide these capabilities once released. (example: rebooting the device, updating the software remotely, managing software settings). |
| When the management software comes out, will you be able to manage multiple kiosks or all the kiosks via a single platform instead of all these being standalone units? | Units are stand alone and can be operated as such, soon MzeroManage will manage all the units together so there is one database to edit that will propagate employees and system settings to all kiosks from a central location. |
| Is there a web GUI or other user interface to access the software running on the virtual machine? | Yes there is a web front end dashboard (the same one that is in our hosted environment) |
| What Operating System does the virtual machine run, and what are the required specs? | We typically run on Ubuntu 18.04 or CentOS8 |
| Can you confirm that MzeroManage will allow central, cloud-based storage of face data, temperature readings, pictures upon scan, and entry timestamp from multiple devices? | Yes it does. It will consolidate the scans and management of the employee database |
| What data is stored in the cloud? | <ol style="list-style-type: none"> 1. Kiosk physical ID 2. Time and date stamp 3. Photo at time of entry 4. the employee ID (if an authenticated employee) 5. the employee name (if an authenticated employee) 6. IC card number (only in the IC card configuration and the card is presented) |
| Who has access to our data once in your cloud? | The end client has access to client data. Meridian software engineering only has access to the systems for the purpose of maintenance and updates. |

BYOD

| | |
|---|---|
| Can I use my own or an existing Android tablet? | The system is purpose built and a custom motherboard with interconnects to special equipment such as IR scanner, integrated cameras, LED controllers, IR arrays, and IC scanners. You would need to develop new software using peripheral SDKs from scratch, this may include your own face recognition system. |
|---|---|

WIEGAND CONNECTOR

| | |
|---|--|
| What is the bit format? What bits are the facility code, card code, parity, etc? | The Wiegand has three wires D0 (EXTIO-2), D1 (EXTIO-3) and GND. The VCC is not to be connected. It outputs wiegand 26, 32 or 34 bit card data. The bit rate is 9600 the parity is 1 the stop bit is 8. |
| What determines the data that is output on the Wiegand? | In card models it's the card number but only on successful face scan. Card reader is optional so you need to order one with the card reader. Please refer to our site the card reader has some limited media it currently supports, primarily MIFARE cards. MifareS50,MifareS70,FM11RF08 series card, and the physical card number of protocol compliant ISO/IEC14443A |
| Do you have to use facial recognition to enable Wiegand data? | It just returns the scanned ID, note that you need to have a model with a card reader for wiegand output. |
| What is the expected data format? | It outputs binary data depending on the mode, you will have to parse card ID. |
| How is the wiegand input used? | Door control |
| Can you combine a wiegand input with temp scan before wiegand the output is sent? | It only outputs the card number. |

DETAILS

| | |
|---|---|
| Can you provide more information on the thermal camera? | It's an infrared thermal imaging module inside the device developed for this device. Its communication channel is rs232 it uses a lot of software developed to process the serial communication line into temperature information from the data stream. |
| Where is the Personnel Management Kiosk manufactured? | We have parts from USA, China, and Germany that make up the Personnel Management Kiosk, with all final assembly, testing, software setup and shipping from Aberdeen North Carolina USA. |
| What is the warranty on the Personnel Management Kiosk? | The Personnel Management Kiosk comes with a 1 year return to depot warranty. |



CORPORATE HEADQUARTERS
312 S Pine Street, Aberdeen, NC
sales@mzero.com
+ 1 866 454 6757

SOFTWARE DEVELOPMENT LAB
30 Eglinton Ave, Ste 808, Mississauga, Ontario, Canada

Component specifications subject to change without notice. Revision Date: August 11, 2020

This device is not FDA-cleared or approved. This temperature device should not be solely or primarily relied upon to diagnose or exclude a diagnosis of COVID-19, or any other disease or health condition. Elevated body temperature in the context of use should be confirmed with secondary evaluation methods, such as a non-contact infrared thermometer or clinical grade contact thermometer.