

HOW IS THE FINGERPRINT DATA STORED ON THE CARD?

- a. During enrollment, the fingerprint scanner captures a 3D representation of the finger and sends this to the patent pending algorithm which extracts the unique information used for matching and stores this as a binary data template, **no full fingerprint is ever stored**. More precisely, a hash cryptogram is made of the template, and this is permanently saved within the processor's non-volatile memory. The processor is hereafter locked down to ensure confidentiality of the firmware and fingerprint templates.
- b. The Zwipe hash of a fingerprint, has no value in any other fingerprint based system.

HOW DOES THE ZWIPE CARD PREVENT RF (RADIO FREQUENCY) COMMUNICATIONS?

- a. RF communications between the transponder and reader is locked down until proper authentication is granted by the "fingerprint system" on the card. Once authentication is granted the card allows full two-way read & write communication between the transponders and RF reader for five (5) seconds before terminating the session.

DOES THE ZWIPE PROCESSOR COMMUNICATE WITH THE RF TRANSPONDER?

- a. Biometric enrollment and authentication is **100% independent** of the embedded RF transponder (i.e., Prox or Mifare chip) so that there is no communication link between the two – and there is thereby no way to interact with the fingerprint data over the RF transponder (i.e. Prox or Mifare), once the fingerprint is stored in the card.

CAN I READ/WRITE TO THE RF TRANSPONDER AFTER THE CARD OWNER'S FINGER HAS BEEN ENROLLED?

- a. Yes, after authentication has been granted by the card, a standard RF communication session is established between the transponder and reader. During this session the card's data file or files can be updated on the card for 13.56MHz based transponders. A new application/segment can be loaded (i.e., Mifare vending application) or an existing segment/data file can be updated. Depending on card version there will be a 5 second read/write communication window available after a finger authentication.

WHAT IS THE BATTERY LIFE?

- a. Zwipe credentials use a standard replaceable #2032 coin cell battery readily available at any retail outlet. The battery supports up to 4,000 authentications in room temperature. High and low temperatures cause faster battery drainage. Normal use ranges from 12 to 18 months depending on daily use. We recommend changing the battery once a year.
- b. If the battery is low, the LED will blink Green-Red-Green-Red four (4) times after authentication. While the cards still works, please replace the battery. If the battery is completely drained, no lights will appear. If this occurs simply replaced the #2032 cell battery.

DO I NEED ANY EXTERNAL FINGERPRINT PROGRAMMING TOOLS OR API?

- a. No, the entire fingerprint enrollment process is conducted directly and entirely on the card. The card cannot communicate or transmit any biometric information to any external device.

HOW LONG DOES IT TAKE TO AUTHENTICATE A FINGER?

- a. Approximately 1 second.

DO THE CARDS COME WITH ANY EXTERNAL IDENTIFICATION NUMBER?

- a. Zwipe cards come with just a serial number and part number, but excludes the CSN or FC/Badge#. Prox cards can be ordered with badge ID# printed for a small upcharge.

HOW DO I REGISTER THE CARD INTO MY CPI EAC SOFTWARE?

- a. Prior to fingerprint enrollment, the embedded RF Transponder's CSN/UID or Facility Code/Badge number are freely read as the card is unlocked – just like a regular Mifare or Prox card - and can be easily read by your existing badge enrollment reader and entered into your CPI EAC system, or company PAC system (if approved for such use) .
- b. After the card is registered into the CPI EAC system, the employee should then enroll their fingerprint directly on the card which “locks” it to the user, so only they are able to use the card after enrollment.
- c. Optionally, have the card owner first enroll their finger directly on the card to establish card ownership. Then have the employee authenticate on the card and then hold the card to the card reader to associate the card to the CPI EAC database – there will be a 5 second programming window after each verified authentication.

WHAT HAPPENS IF I REMOVE THE BATTERY?

- a. Because the fingerprint template is stored in non-volatile memory, removing the battery does not erase or delete the stored templates.

IS THE CARD TAMPER RESISTANT

- a. The Zwipe credential is tamper resistant/evident using a combination of a special liner for water resistance and internal locking posts. Attempts to open the card would cause physical damage to the internal posts indicating the card has been tampered with.

DOES THE CARD LOCK OUT AFTER A CERTAIN NUMBER OF AUTHENTICATION FAILURES?

- a. The credential allows 3 failed authorization attempts then powers down. The authentication process can immediately start again by powering up the credential. Zwipe has not incorporated a permanent lock out feature.

HOW DURABLE IS THE CARD?

- a. Treat your Zwipe credential like your cell phone (or better), for years of use. The credentials hold up well being exposed to dirt, grease, moisture, and the occasional drop. The cards are water resistant, not water proof, and operate best between -20° to 40° C. The fingerprint sensor is tested to 10 million scans and has a protective scratch resistant material over the sensor's surface.

CAN I PERSONALIZE THE CARD FOR AN EMPLOYEE?

- a. Yes, the back side of the card accepts standard clamshell adhesive labels (i.e. HID-1324GAV11). Such adhesive badge labels can be printed in most standard **CR-79 compatible credential printers**.

WHAT IS THE WARRANTY?

- a. All Products sold are warranted against defects in workmanship and material under normal use for a period of twelve (12) months. Products which have been subjected to unusual physical, environmental or electrical stress might not be covered under warranty.

CAN I REISSUE A ZWIPE ACCESS CARD?

- a. For general security purposes, and to maintain a high level of personal privacy it is recommended that the card is properly disposed of once returned to the issuing organization. Contact CPI Technical Support for more information.

HOW LONG DOES IT TAKE TO ENROLL A FINGER?

- a. Less than 60 seconds.