

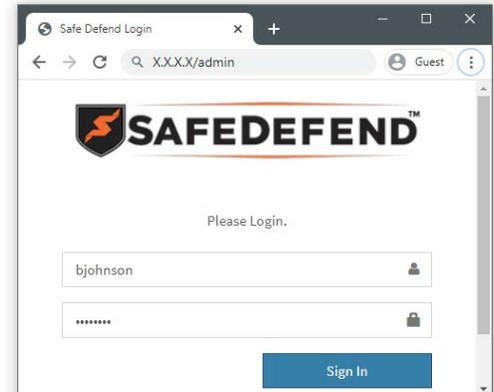
SAFEDEFEND

Enrollment Procedure & Best Practices

For the SafeDefend system to be maximally effective, quality fingerprint enrollment is absolutely key. Uninformed and/or sloppily executed enrollment could compromise the ability of a user to reliably activate the system. Fortunately, employing *very* simple best practices during the enrollment process keeps the vast majority of issues at bay.

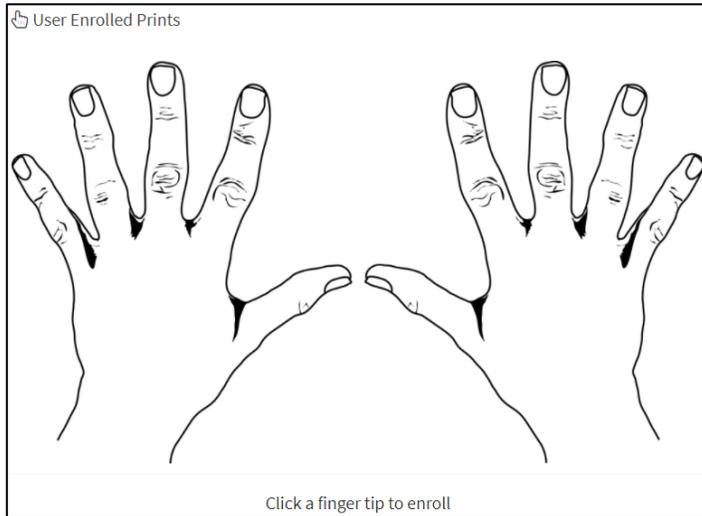
Enrollment Step-by-Step:

- 1) Log in to the SafeDefend web interface using these steps:
 - a. Navigate to **10.156.5.19/admin** in a web browser.
 - b. Enter your User ID (most commonly, the username portion of your e-mail address. E.g if your e-mail is bjohnson@organization.org, you would use bjohnson).
 - c. Enter your password and click Sign In.
- 2) Click on “Users” in the left-hand pane.
- 3) Click the “Add User” button in the lower right-hand corner.
 - a. *Note: If the user already exists, search for them using the “Search” box, click on their user entry, and skip to Step 5.*
- 4) Enter the desired User ID for the enrollee. As above, the username at the beginning of your e-mail address is recommended. Click OK.
 - a. *Note: Only users that need access to the web interface will need to remember their User ID.*
 - b. *Note: User ID’s are case-sensitive.*
- 5) Enter the user’s First Name, Last Name, Phone Number (cell), and E-mail Address.
- 6) Select the Location(s) at which the user will be allowed to activate the system.
 - a. *Note: For those who are not SafeDefend system administrators and do not need access to the web interface, “Role” and “Password” should be left alone.*
- 7) Click “Save user info”.

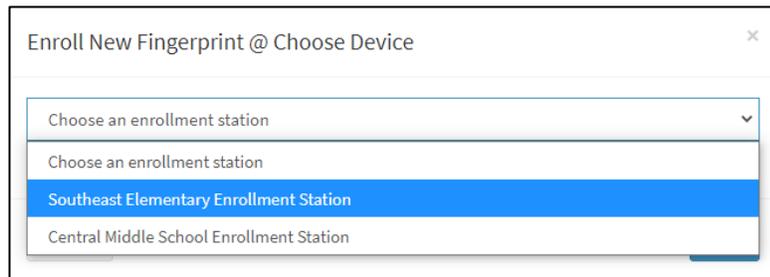


First Name	Last Name
<input type="text" value="Alan"/>	<input type="text" value="Watts"/>
Cell Number	Email Address
<input type="text" value="323-555-2433"/> <input type="button" value="Send Test"/>	<input type="text" value="awatts@someplace.org"/>
10 digit cell phone number	
Role	
<input type="text" value="No Login Allowed"/>	
Allowed Locations	<input type="checkbox"/> Central Elementary School
	<input checked="" type="checkbox"/> Central Middle School
	<input type="checkbox"/> Default Location
	<input type="checkbox"/> District Office
	<input type="checkbox"/> East Elementary School
	<input type="checkbox"/> Maintenance Building
	<input type="checkbox"/> Northwest Middle School
	<input type="checkbox"/> South High School
	<input checked="" type="checkbox"/> South Middle School
	<input type="checkbox"/> Southeast Elementary School
	<input type="checkbox"/> Southwest ECC
	<input type="checkbox"/> West High School
Create Date	Aug 23, 2020 04:20 PM
Suspend Time	Not Suspended
Last Login	Never
Failed Login Attempts	0
Password	
<input type="text" value="New Password"/> <input type="button" value="Update"/>	
<input type="button" value="Save user info"/>	

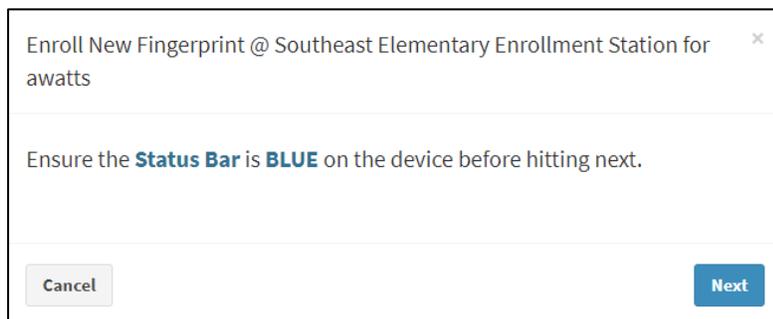
8) Click on the fingertip of the finger you wish to enroll.



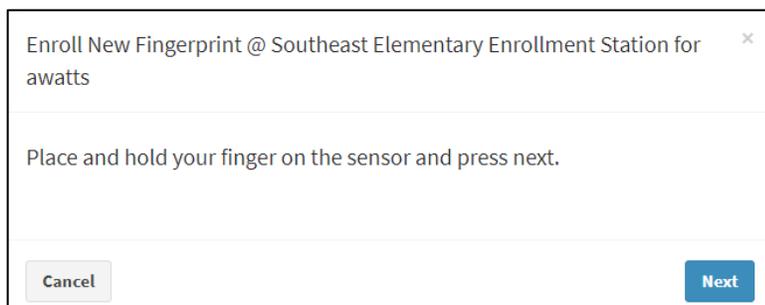
9) Select the device you wish to use for enrollment from the menu. Click "Okay".



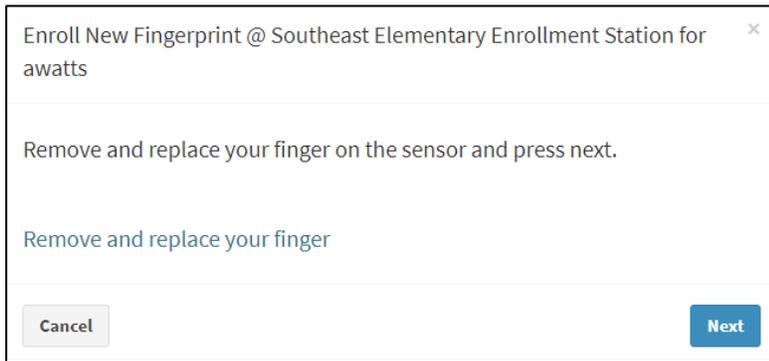
10) Wait for the Status Bar on the device to turn **BLUE**, then click the "Next" button.



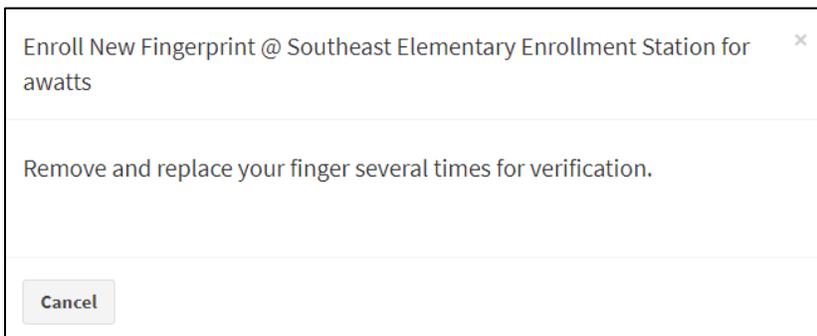
11) Tell the enrollee: **"Place and hold your finger on the sensor"**. Ensure correct finger placement (SEE BEST PRACTICES BELOW). Once it is placed correctly click "Next". The reader captures its first of two scans.



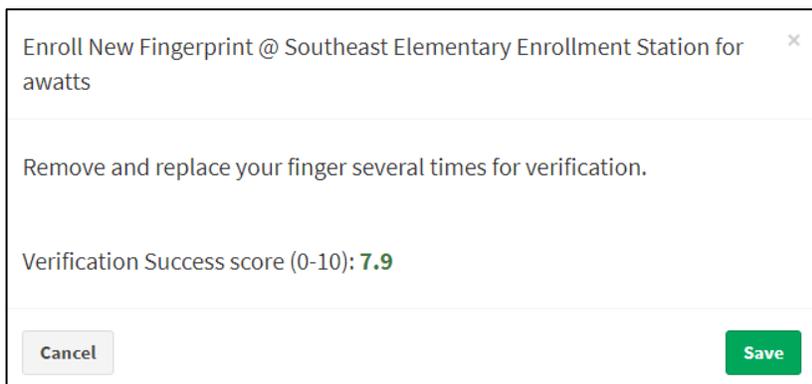
- 12) Tell the enrollee: **“Remove your finger and put your arm down at your side.”** And then, **“Now place your finger on the sensor again.”** Ensure correct finger placement and click “Next”. The reader captures its second of the two scans.



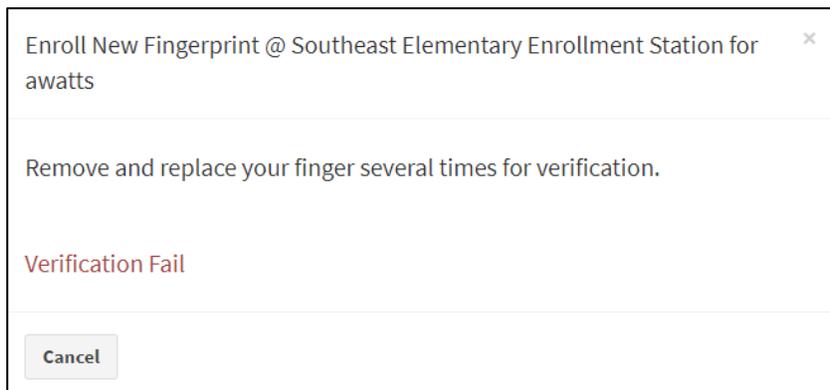
- 13) The message in the dialog box changes slightly prompting for verification. Tell the enrollee: **“Remove your finger and put your arm down at your side.”** And then, **“Now place your finger on the sensor again.”**



When placed, the user’s fingerprint is automatically scanned to verify it against the captured prints. If the verification was successful, a match score between 0 and 10 will appear in the dialog. You may wish (especially in difficult cases) to have the user remove and replace their finger multiple times to ensure that they are able to reliably obtain a score.

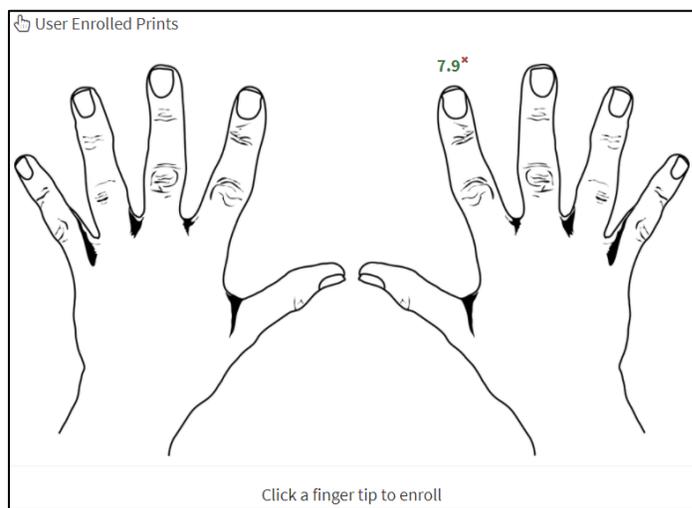


While the match score is on a scale of 0 to 10, the verification threshold is 4.5. That is, if the user places their finger during this verification step and their match score is below 4.5, a “Verification Fail” message will appear. If repeated verification attempts fail, click “Cancel” and try to enroll the print again, starting by clicking on the appropriate fingertip.



The user must obtain a score in order to complete enrollment for a given fingerprint. Once a score is obtained, the “Save” button will appear (see image on previous page). Click it to save the fingerprint record. This will take ~4-6 seconds.

- 14) The user’s final verification score is now visible next to the enrolled fingerprint in the diagram. This indicates a successful fingerprint enrollment. There is no need to click “Save user info”.



- 15) Repeat for other fingers that need enrolled. Two fingerprints — one from each hand — is recommended.

Notes:

- Not all individuals will succeed in enrolling in the SafeDefend system due to poorly defined fingerprints. A print must possess sufficiently deep ridges, be sufficiently free of “creases”, and more in order to be properly scanned and/or matched. The combination of sophisticated software and proper enrollment technique can bring this to a rate of ~99% successful enrollment.
- The threshold score for activating the system is a 4.5 (same as for verification). So, if a user has difficulty obtaining a score, they will most likely have difficulty activating the system.

Fingerprint Enrollment Best Practices

Quality Enrollment is KEY for an Effective System.

- Place the center of the “swirl” on the center of the reader.
- Place finger head-on and parallel with the surface of the reader.
- Apply enough pressure, but not too much.
- Place hand at your side between scans (i.e. during “remove and replace”).
- Follow on-screen instructions exactly as presented.



Fingerprint Enrollment Best Practices

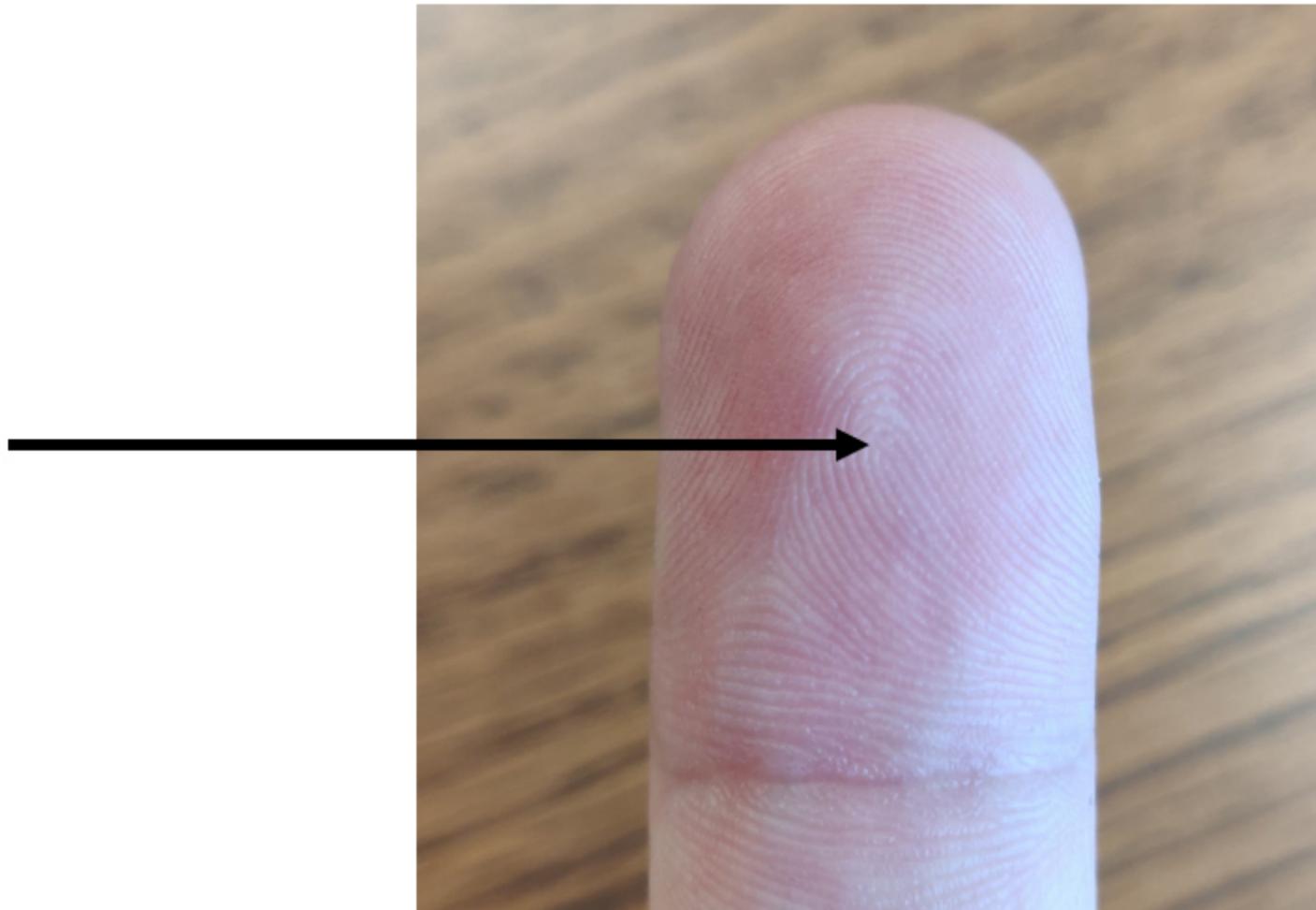
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- **For difficult cases:**
 - Examine enrollee's fingers to identify best print.
 - "Stacked Enrollment":
 - Enroll a given finger in as two different fingers. For example, enroll the right index finger as usual and then enroll it also in an unused fingerprint slot (right thumb, for example). This increases the quantity of data for a given fingerprint.
 - Have enrollee touch the side of their nose or behind their ear before placing finger on the sensor.



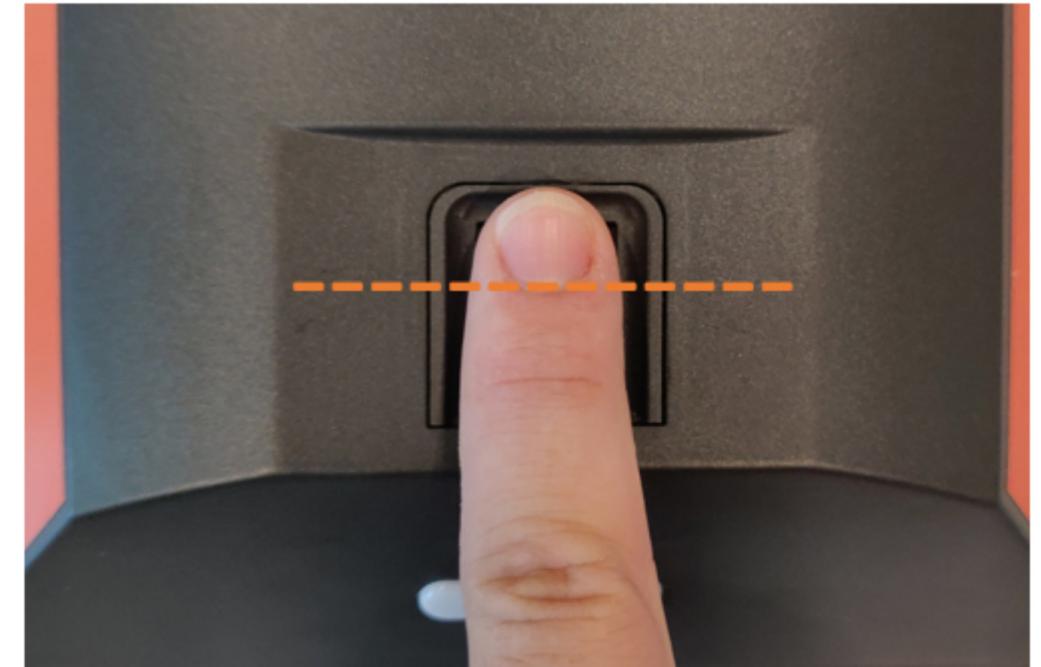
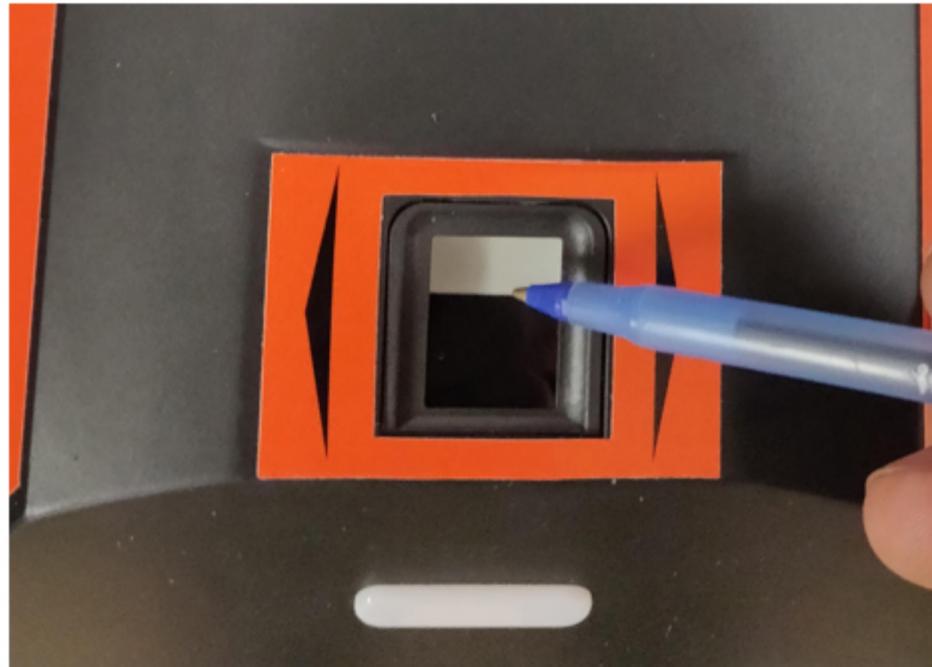
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Fingerprint Enrollment Best Practices

- Apply enough pressure, but not too much.
- Apply pressure such that a dollar bill or piece of paper would pass, but not without some resistance from friction.



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