



November 2020

Expression of Interest HQ20NF765-EOI

Background

The World Food Programme WFP is the world's largest humanitarian agency fighting hunger worldwide, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience. Each year, WFP assists some 80 million people in around 80 countries.

WFP uses biometrics to identify and authenticate beneficiaries to help ensure that assistance reaches the right people.

In most cases the biometrics that we have used hitherto require the beneficiaries to touch a sensor (e.g. a fingerprint scanner or an Iris scanner) and as a result of the COVID pandemic we are now looking for solutions where the need to come into physical contact with a sensor is eliminated.

In particular, with this EOI we are looking to identify solutions which can capture Iris images in a contactless manner, i.e. without the need for the person's face to come into contact with any part of the sensor (e.g. a hood).

The responses to the EOI should take into account the fact that the nature of our operations mean that these solutions will often be used in challenging environments (high temperatures, humidity, dust, poor lighting, unreliable power supply etc.).

The captured biometrics are used for the following purposes:

1. Deduplication – i.e. to ensure that beneficiaries are only registered once in the WFP system
2. Authentication – i.e. to check that the person claiming assistance is the same as the originally identified person.
3. Identification – i.e. to identify a person by matching a captured biometric to biometrics on the SCOPE database

In particular we require iris capture solutions which can address the following use cases:



Use case 1 – registration/enrolment

In the registration process beneficiary details are captured, including biometrics where needed.

In this case WFP requires an iris capture solution which can be integrated with the WFP registration platform. The WFP registration platform is a stand-alone, off-line application which runs on Windows and Android. It should be possible to integrate the selected solution so that Iris capture can be included as part of the standard workflow within the registration application.

Use case 2 – deduplication

The selected solution should allow the images captured in the registration process (use case 1 above) to be stored and processed within WFP's existing systems, including our current Automated Biometric Identification System (ABIS), Neurotechnology MegaMatcher.

Use Case 3 – on-line identification and/or authentication

In this uses case we need to be able to capture biometrics in the field and then compare them to the biometric database in order to:

- i) Identify an individual, i.e. do a 1:n match to find the person in the WFP system, just using their biometrics.
- ii) Authenticate an already identified individual, i.e. perform a match (1:1) between the captured biometric and the reference biometric for the individual to verify that the person is who they claim to be.

Therefore, for this use case we require a solution which can be attached to/integrated with our relevant in-field systems, in particular:

- i) WFP mPOS. This is a system which is used in retail stores and other distribution points to record the redemption by beneficiaries of electronic food vouchers in exchange for commodities. The solution runs on mobile devices (Android 4.4 and Android 6). The Iris scanner can be either powered from the mPOS device itself (via device micro-usb) or may be externally powered, depending on the power requirements of the Iris scanner. Note that the mPOS devices include an in-built camera.
- ii) SCOPE on-line. This is a web-based application which is used to perform look-ups on the SCOPE database. A captured iris scan would be used to perform a look-up (1:n) against the on-line SCOPE biometric database to find a match and thereby identify the person.



Use case 4 - off-line authentication

The WFP SCOPECARD solution allows beneficiaries to be biometrically authenticated in off-line situations. This is achieved by storing the reference biometrics on a smart card held by the beneficiary. At the redemption/authentication point the WFP mPOS solution captures the beneficiary biometric and then compares this to the reference biometric on the beneficiary smart card.

In this case we need a solution which can be attached to/integrated with the mPOS solution, as per the on-line use case above, but in addition the solution needs to be able to store the biometrics on the WFP smart card, SCOPECARD. The SCOPECARD has limited capacity and therefore the solution needs to be able to:

- reduce a single Iris image to a size which will allow it to fit onto a SCOPECARD. In practice this means the image should fit within 1.5 kB.
- Compare a captured iris image to the reduced reference image on the card (as detailed above) in order to determine a match score which can be passed back to the mPOS application

General

Responses can be for any or all uses cases, using the same or different devices/solutions. Where different solutions are proposed the response should indicate whether or not they are inter-operable.

Both monocular and binocular solutions will be considered, although it is likely that binocular solutions will be more suited to registration (use case 1) and monocular solutions to authentication and identification (use cases 3 and 4).

Goods/Services required

WFP would like to short-list companies for a formal tender process for **a hardware or software solution** to address the need for capture and processing of iris biometrics.

Response

In order to participate in the pre-selection exercise, companies are required to provide the following:

- Confirmation of interest in being considered for the formal tender process;



- Brief summary (max two A4 pages) of experience showing professional and technical competence in the delivery of the required goods/services.
- An outline of your proposed solution describing:
 - **the hardware used, including interfaces and power requirement;**
 - **supported capture distance, lighting requirements etc.**
 - **image formats supported, image quality and size**
 - **integration options and capabilities**
 - **supported operating systems**
 - **how the solution will meet the requirements for SCOPECARD i.e. the ability to reduce iris image size so that it can fit onto SCOPECARD and still be used for 1:1 matching**
 - **relevant industry certifications and compliance with industry standards for iris capture and processing**
- No financial proposal is required at this stage of the process.

If your company is interested in partaking in this initiative please provide the information requested to the following email address:

hq.tenders@wfp.org

Only companies that submit complete responses will be considered for the next phase of the process.

The deadline for response to this Expression of Interest is:

3 December 2020, 16:00 hrs CET

Should you have any questions please do not hesitate to contact us at hq.tenders@wfp.org.

Sincerely,

Snjezana Leovac
Head, Goods and Services Procurement Branch
World Food Programme