

Annex 2

Technical Specifications

Version 1.0

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1 SCOPE OF TENDER

Table 1 describes the scope of this tender. Refer to Chapter 2 for further description of each component.

Solution component	Scope
Fingerprint enrollment device together with drivers	The Vendor SHALL submit fingerprint enrollment device enabling to carry out all the enrollment and matching operations.
Licenses	The Vendor SHALL submit all the licenses required to operate the fingerprint enrollment device. Licenses MUST cover all the fingerprint enrollment device purchased in course of this Tender.
Support	The Vendor will provide full support and warranty service of the delivered hard- and software for 3 (three) years.

Table 1: Scope of Tender

2 TERMINOLOGY

Requirements as defined in this Specification can be mandatory, recommended or optional. All the requirements in this document are mandatory if not otherwise clearly specified. All mandatory requirements are considered as “at least”. Surpassing those requirements are optional and denoted with marks \geq , $>$, $<$ and \leq .

MUST, SHALL, REQUIRED, NORMATIVE	The implementation is an absolute requirement of the specification and must be used/included.
RECOMMENDED, NOT RECOMMENDED, SHOULD, SHOULD NOT	The requirements are recommendations, this means that there may exist valid reasons in particular circumstances to ignore a particular item or requirement, but the full implications must be understood and carefully weighed before choosing a different course.
MAY, OPTIONAL	The requirements are not binding. One operator or vendor may choose to include it but another may omit it.
MUST NOT, SHALL NOT	A so-called requirement is an absolute prohibition of the specification.

Table 2: Interpretation of keywords

3 DEFINITIONS AND ABBREVIATIONS

3.1.1 DEFINITIONS

Term	Definition
PIV-071006	FBI interoperability standard for fingerprints. PIV-071006 standard designed to support one-to-one fingerprint verification. Certification is available for devices intended for use in the FIPS 201 PIV program

Term	Definition
Contracting Authority	The term Contracting Authority used to refer to IT and Development Centre, Ministry of the Interior (SMIT) as responsible for the tender process and as responsible Commissioning Party.
PIV Single Finger	Includes capability to collect a single finger flat impression, with a minimum size limitation.
Vendor	The term used throughout this specification to refer to the vendor, tenderer/bidder or contractor in all phases of the procurement and delivery of the requested solution.
WSQ	A fingerprint image compression algorithm
Secunet Biomiddle	Secunet Biomiddle middleware solution used by Contracting Authority for fingerprint enrollment

Table 3: Definitions

3.1.2 ABBREVIATIONS

SDK	Software Development Kit
USB	Universal Serial Bus
WSQ	Wavelet Scalar Quantization

Table 4: Abbreviations

4 GENERAL REQUIREMENTS

Unless otherwise stated, the requirements in this Specification apply mandatorily to all software and hardware components offered by the Vendor in the framework of this Tender. It is clearly indicated if a feature or characteristic is optional or recommended.

4.1.1 FINGERPRINT READER

The fingerprint reader together with accompanying software MUST allow enrollment of 1 flat fingerprint. As it MUST designed specifically for Law Enforcement, Border Control and National ID Programs operations, therefore compliance to PIV is required.

It MUST be a low-power device using PC as its power source via USB interface.

5 TECHNICAL REQUIREMENTS TO FINGERPRINT READER

NO.	REQUIREMENT DESCRIPTION	VENDOR'S RESPONSE	FULFILLED
REQ 1.	PIV Single Finger enrollment MUST supported.		
REQ 2.	Complete compatibility with Secunet Biometric MUST supported.		
REQ 3.	WSQ image format MUST supported.		
REQ 4.	RAW, JPEG2000, BMP, PNG image format support is optional.		
REQ 5.	Resolution 500ppi is REQUIRED.		
REQ 6.	256 levels of grayscale dynamic range is REQUIRED.		
REQ 7.	Minimal frame rate > 10 fps is REQUIRED.		
REQ 8.	FBI PIV certification is REQUIRED.		
REQ 9.	Sensing area dimensions corresponding to single finger flat impression size are REQUIRED.		
REQ 10.	USB 2.0 interface support is REQUIRED.		
REQ 11.	USB 3.0 interface support is OPTIONAL.		
REQ 12.	Power supply over USB is REQUIRED.		
REQ 13.	Maximum power consumption over USB <300mA		
REQ 14.	Operating temperature +5°C - +40°C is REQUIRED.		

REQ 15.	Operating humidity (non-condensing) 40-85% RH is REQUIRED.		
REQ 16.	Microsoft Windows 10 support is REQUIRED.		

6 SYSTEM DOCUMENTATION

NO.	REQUIREMENT DESCRIPTION	VENDOR'S RESPONSE	FULFILLED
REQ 17.	The Vendor SHALL, for all equipment (hardware) offered; provide general system documentation written in English containing instructions of cleaning, disinfection, calibration etc. targeting personnel responsible for installation, configuration and maintenance.		

7 REQUIREMENTS DEFINITION AND TENDER EVALUATION

7.1 REQUIREMENTS DEFINITION

As stated here above in this document all the provided requirements are mandatory.

7.1.1 MINIMUM REQUIREMENTS

NO.	REQUIREMENT DESCRIPTION	VENDOR'S RESPONSE	FULFILLED
REQ 1	[Requirement title] [Customer's Requirement Description]	<i>[Vendor to include, or refer to, supporting documentation that prove/support fulfilment of the minimum requirement]</i>	Yes/No

REQ 2	[Requirement title] [Customer's Requirement Description]		Yes/No
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The requirements will be stated as in the example above.

The first column labelled “No.” provides a unique number for each requirement, using the prefix “REQ”. Requirements are numbered sequentially throughout the document.

The second column labelled “Requirement Description” contains a Requirement Title (bold text) and the Contracting Authority’s Requirement Description. The requirements are not scored, but evaluated as fulfilled/not fulfilled based on the documentation provided by the Vendor. The Contracting Authority reserves the right to decide if the Vendor fulfils the requirements or not based on the documentation provided.

The third column labelled “Vendor’s Response” shall be filled by the Vendor to include, or refer to, supporting documentation to convince the Customer that the requirement is fulfilled. The referenced documentation should be as short and precise as possible.

In the last column labelled “Fulfilled” the Vendor must clearly state whether the Vendor fulfils the requirement (**Yes**) or not (**No**). Should the column “Fulfilled” not be filled in, then the Customer will assume the column to be filled in with “No” and therefore it will constitute a confirmation that the Vendor cannot comply with the requirements.