Real Time Identification (RTID)

NATIONAL POLICE SERVICES NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY INTERFACE CONTROL DOCUMENT FOR IMMIGRATION CONTRIBUTORS

NPS-NIST ICD 2.1.1

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RCMP
National Police Services
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Interface Control Document

For Immigration Contributors

DISCLAIMER

The purpose of the specifications contained in this document is to enable Immigration, Refugee and Citizenship Canada (IRCC) and Canada Border Services Agency (CBSA) to electronically connect via a standard interface to the Royal Canadian Mounted Police (RCMP) National Police Services (NPS). Agencies that fully implement this specification will be able to capture and transmit fingerprint and demographic data in a format compatible with the Real Time Identification (RTID), Canadian Criminal Real Time Identification Services (CCRTIS). Authorized agencies will be able to submit immigration enrolments and verifications for search against and possible storage in the RCMP National Automated Fingerprint Identification System (AFIS) database as well as non biometric file management submissions.

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- Section 2 – RCMP NPS External Contributor Requirements describes common requirements of the NPS-NIST (National Police Services' National Institute of Standard Technology) interface;

- Section 3 – Types of Transactions defines the types of transactions available in the NPS-NIST ICD 2.1.1;

- Section 4 – NIST Data Definitions defines the tags, the record types and the record layouts;

- Section 5 – Logical Record Formats defines the record types associated with each transaction;

- Appendix A – Tables contains reference tables used to populate various tags used in the NPS-NIST defined transactions;

- Appendix B – Summary Tag List for Transactions to the RCMP presents the summary Type-2 tag list available to support all RCMP Immigration transactions;

- Appendix C – Data Dictionary of RCMP-Defined tags presents the data dictionary of RCMP-supported data tags relevant to this ICD; and

- Appendix D – List of Acronyms provides a glossary of acronyms used in this document.

The transactions supported by NPS-NIST ICD Version 2.1.1 are intended to be used only in support of Immigration enrolments, anonymous searches, or verifications, and the management of Immigration files by CBSA and IRCC.

The RCMP NPS-NIST Certification Document provides certification test scenarios and data, including the steps to be performed, and the required flow of transactions to and from the RCMP NPS and the contributor. Vendors must be certified by the RCMP before a Contributor can begin submitting transactions for processing.

Throughout the document, references to the National Police Service National Institute of Standards and Technology Interface Control Document (NPS-NIST ICD) versions 2.1.1 can be made in either long form, (ex: NPS-NIST ICD 2.1.1), or short form (ex: ICD 2.1.1).

Furthermore, all mention made within to ICD 1.7.8 or NPS-NIST ICD 1.7.8 (published separately) specifically means ICD version 1.7.8 revision 1.6.

1.   Introduction

The following section provides general information about NIST and the RCMP's implementation of the American National Standards Institute/National Institute of Standards and Technology (ANSI/NIST) specification to support the Temporary Resident Biometric initiative for immigration enrolment.

1.1   Background

The ANSI/NIST specification for the exchange of biometric data was established by the National Institute of Standards and Technology (NIST) and the fingerprint identification community to provide a way for the electronic exchange of biometric information between dissimilar systems made by different manufacturers. This version of the NPS-NIST ICD is based on the ANSI/NIST-ITL 1-2011 Update: 2015 version of the standard, titled "Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information". Refer to Sec. 1.9, Reference for the full description of this specification. All mention made to ANSI/NIST in this RCMP document specifically means the 2011 Update: 2015 version of the specification.

While the ANSI/NIST standard has established the guidelines for exchange of biometric data between agencies so that a file is well-formed, it is the NPS-NIST ICD which defines the requirements that agencies must adhere to when electronically communicating with the Real Time Identification (RTID) System in order for a file to be valid.

Note: the RCMP retired ICD version 2.1.0 at the beginning of January 2016. Transactions formatted according to version 2.1.0 are no longer accepted by RTID.

1.2   Objectives

The purpose of the NPS-NIST-ICD is to provide a specification for interfacing electronically with the RTID System. This document is based on the American National Standards Institute (ANSI) / NIST- Information Technology Laboratory (ITL) 1-2011 – Update 2015 version of the standard although there are some deviations from this version of the standard. The specification for biometric data (fingerprints, palm prints, and facial images) is largely defined in the ANSI/NIST specification. The specifications for Type-2 demographic data (name, home address, physical description, etc.) are defined by this ICD. This document describes the types and format of information that the RCMP expects to receive and send electronically.

This standard will facilitate the development or purchase of automated systems that will allow IRCC and CBSA to electronically exchange fingerprint images and other information with the RTID System. NPS-NIST ICD version 2.1.1 contains Immigration specific transactions to be used only by IRCC and CBSA.

RTID also processes transactions for criminal, civil, immigration and latent crime scene fingerprints for a larger community based on other NPS-NIST ICDs. For immigration purposes, the ICD 1.7.8 REF transaction is limited to CBSA usage (or other authorized agency) as an alternate method of completing an Immigration Enrolment.

This document is not intended to provide a set of requirements or specifications related to a contributor's front-end application. Requirements related to electronic fingerprint capture devices (EFCD) and record management systems are entirely the responsibility of the contributor. This document is solely intended to define the standard by which a contributing agency's system can exchange data with the RTID System.

A suggested list of front-end application features is provided in section 2.3 of this document as a guideline when evaluating the EFCDs or related systems solutions.

No details of networking or communications protocols are provided in this document. While contributing agencies are required to securely communicate with the RTID System, this document provides no details of how that communication takes place.

NPS-NIST ICD 2.1.1 transactions are totally independent from that of ICD 1.7.8. The NPS-NIST ICD 2.1.1 *is not necessarily compatible* with NPS-NIST ICD 1.7.8 even though some TOTs share identical names (SRE, ACKT and ERRT). ICD 2.1.1 is only relevant to IRCC and CBSA in support of Immigration files, and is not intended for general RTID use.

All systems currently operated by IRCC and CBSA and certified to a prior revision of NPS-NIST ICD version 2.1.1 shall continue to operate exactly the same as before, irrespective of the document revisions appearing in ICD version 2.1.1 revision 3.0. That is, backward compatibility to an earlier revision of version 2.1.1 is assured by the RCMP as a design principle.

1.3 Temporary Resident Biometrics Project

The Temporary Resident Biometrics Project streamlined and enhanced identity management within the Temporary Resident Program to aid admissibility decisions based on accurate identity from the use of biometrics.

Streamlined and enhanced identity management includes the enrolment, management and verification of fingerprint and biographic information for select foreign nationals applying for Temporary Resident Visas and/or Temporary Resident Work/Study Permits. Discretionary verification at selected POEs will confirm the identity of visa-required foreign nationals.

Key elements of the Temporary Resident Biometrics (TRB) Project solution include:

Capturing of biometrics by IRCC Visa Offices, Visa Application Centres (VAC) or Government Service Providers (GSP) abroad to establish a reliable biometric identity. IRCC then submits NPS-NIST ICD 2.1.1 Immigration enrolment (IMM) transactions to the RCMP.

RCMP searches the fingerprints for identification purposes against the RTID System and returns the Search Results (SRE) to assist IRCC with admissibility decisions. The RCMP will enrol the fingerprints in AFIS;

CBSA confirms the identity of visa-required foreign nationals by submitting Verification (VER) transactions to the RCMP from select POEs. The client's fingerprints are compared 1:1 against the fingerprints captured at the time of enrolment and a match response (SRV – Verification Search Result) transaction sent to CBSA. However, if the transaction contains validation errors, a verification error transaction (ERRV) will be sent to CBSA; and

When required, IRCC will submit (IMA) Amend or (IMP) Purge transactions to the RCMP for processing to ensure that the RCMP's biographical information remains current, accurate and valid. An Immigration Amend Results (IMAR) or an Immigration Purge Results (IMPR) transaction is sent to IRCC when the RCMP has completed processing the (IMA) Amend or (IMP) Purge transaction.

1.4   Immigration Information Sharing Project

The Immigration Information Sharing (IIS) Project's purpose is to build on the solution developed for the TRB project to enrol Resettlement Refugees and Inland Asylum Claimants in addition to Temporary Residents.

As part of the IIS project, a new Anonymous Tenprint Search (ATS) transaction has been defined to allow non-retain anonymous searches for immigration identification purposes for select FCC countries.

1.5   Biometric Expansion Project

The Immigration Biometric Expansion Project, allowed the Anonymous Tenprint Search (ATS) transactions to be received from additional FCC countries.

Biometric Expansion also introduced the Unsolicited Criminal Notification (UCN) TOT, optionally sent to IRCC and CBSA when a criminal submission identified to an Immigration subject currently held on file by the RCMP.

1.6   Immigration Functions and ICD Versions

With the advent of the Immigration Information Sharing project, IRCC has instituted a non-differentiated, generalized approach to the enrolment of individuals in the immigration stream sent to the RTID System. As a result, IRCC will use the ICD 2.1.1 IMM to enrol all work/student visas or asylum claimants on the RTID System.

CBSA will continue to use the ICD 1.7.8 REF TOT to enrol asylum claimants.

All immigration enrolments using either ICD 2.1.1 IMM or ICD 1.7.8 REF will be assigned a new Immigration Series 2 (i.e. a 12-digit number starting with "5") subject file number by the RTID System. There will be no new Immigration Series 1 (i.e. a 12-digit number starting with 33") subject file numbers assigned by the RTID System. All existing Immigration Series 1 subject file numbers are considered legacy files.

Additionally, IRCC can request fingerprint images for individuals already enrolled in the immigration stream, primarily for sharing with international partners. The following NPS-NIST ICD versions and transactions can be expected to be submitted by IRCC and CBSA:

Table 1-1: Versions of the ICD Used for Immigration Information Sharing		
NPS-NIST ICD Version	**IRCC**	**CBSA**
v 2.1.1	IMM, ATS, IMA, IMP	IMM, VER
v 1.7.8	MAP, IRQ	REF, CAR-Y, CAR-N, MAP

1.7   References

The following documents are available to contributors:

RCMP Authored Documents

- Scanner Block Certification Specifications v5.0, November 26, 2018, RDIMS #43381

- NPS-NIST Message Guidelines: A Companion Document to the NPS NIST ICD Versions 1.7.7, 1.7.8 and 2.1.1, April 8, 2019, document version 4.1, RDIMS #21047

- Certification Process for Electronic Fingerprint Capture Device Systems Version v2.00, December 12, 2018, RDIMS #45157

- NPS-NIST ICD version 1.7.8 for Criminal, Civil, Refugee and Image Request Transactions, revision 1.6, September 4, 2019, RDIMS #43697

Externally Authored Documents

- American National Standard Institute / National Institute of Standards and Technology, Data Format for the Interchange of Fingerprint, Facial, & Other Biometric Information, ANSI/NIST-ITL 1-2011 – Update 2015

- Electronic Biometric Transmission Specification (EBTS) Criminal Justice Information Services, FBI, Version 10.0, September 2014

- WSQ Gray Scale Image Compression Specification, IAFIS-IC-0110 (V3.1), Federal Bureau of Investigation, October 04, 2010

- FBI Biometric Specifications (BioSpecs) - Certified Products List, https://www.fbibiospecs.cjis.gov/Certifications

2.   RCMP NPS External Contributor Requirements

The following section describe the requirements to submit electronic transactions to the RTID System.

2.1   General Business Rules

This section describes the business rules that must be met before transactions can be submitted to the RTID System.

2.1.1   Deprecated Tag

In this revision, the RCMP has declared certain data tags which were defined in Type-2 records of previous revisions of ICD 2.1.1 to be obsolete. The deprecated tags are not required because the data involved is no longer used in context of the identification services the RCMP offers to contributors.

Each deprecated tag is clearly annotated as such within the tag definition (Section 4 NIST Data Definitions) and within the Type-2 Record layouts involved (Section 5 Logical Record Formats).

A deprecated data tag shall not be used when claiming conformance to this specific revision of the NPS-NIST-ICD Version 2.1.1 (Revision 3.0).

The data tag may continue to be used by a device previously certified by the RCMP in conformance to a prior ICD Version (e.g., 2.1.1 Revision 2.0).

When a deprecated tag is received by the RCMP within a transaction packet, the RTID System shall ensure that the tag value is conformant with the validation rules applicable to the earlier ICD version. If the tag value is evaluated by RTID as being permissible as per the prior rules, the transaction is accepted and the tag value shall not be processed further.

A tag declared to be deprecated in this ICD revision shall be removed in its entirety in a future ICD version.

2.1.2   NIST File Record Types

Every transaction (NIST file) submitted to the RTID System must adhere to the ANSI/NIST Standard and NPS-NIST-ICD 2.1.1 specification to be considered valid. In order for the RTID System to accept and process a NIST file, it must be both well-formed and valid.

Table 2-1: Supported Logical Record Types lists the record types supported by this ICD.

Table 2-1: Supported Logical Record Types		
Logical Record	**Logical Record Contents**	**Type of Data**
1	Header Record	ASCII
2	Descriptive Text (RCMP-defined)	ASCII

Table 2-1: Supported Logical Record Types		
Logical Record	**Logical Record Contents**	**Type of Data**
14	Fingerprint Images	ASCII/Binary

2.1.3 Separators

The ANSI/NIST-ITL 1-2011 – Update 2015 version of the standard specifies the use of separators to delimit information items within a tag, tags within a logical record, and logical records within a transaction (i.e. ANSI/NIST formatted file). The four information separators are unit/sub-tag separators (^U_S) record/occurrence separators (^R_S) group/tag separators (^G_S) and file/record-type separators (^F_S). It is important to note that all of these separators are a single American Standard Code for Information Interchange (ASCII) character in length, which is shown in the table below.

Table 2-2: Information Separators Used in ANSI/NIST Formatted Files				
Code	**Type**	**Description**	**Hexadecimal Value**	**Decimal Value**
^U_S	Unit/Sub-tag Separator	Separates individual information items within a tag or a sub-tag	1F	31
^R_S	Record/Occurrence Separator	Separates multiple occurrences of a tag	1E	30
^G_S	Group/Tag Separator	Separates information tags within a record	1D	29
^F_S	File/Record-type Separator	Separates record types within a transaction.	1C	28

For example, the Other Names/Aliases (tag 2.824), contains sub-tags and allows up to 40 occurrences. Between each sub-tag there is a ^U_S separator. Between each occurrence there is an ^R_S separator and once there is no more information to enter for this tag there is either a ^G_S separator to separate this tag from another Type-2 record tag or a ^F_S separator if it is the last Type-2 record tag.

Note: Successive separator characters must be used with no intervening blank or other characters when a sub-tag is missing.

Table 2-3: Type 1 Transaction Record Example			
Identifier	**Tag Number**	**Tag Name**	**Example**
LEN	1.001	Logical Record Length	1.001:305^G_S
VER	1.002	ANSI/NIST Version Number	1.002:0502^G_S
CNT	1.003	File Content	1.003:1^U_S4^R_S2^U_S00^R_S14^U_S01^R_S14^U_S02^R_S14^U_S03^G_S

Table 2-3: Type 1 Transaction Record Example

Identifier	Tag Number	Tag Name	Example
TOT	1.004	Type of Transaction	1.004:IMM^G$_S$
DAT	1.005	Date of Submission	1.005:20170429^G$_S$
PRY	1.006	Priority	1.006:4^G$_S$
DAI	1.007	Destination Agency Identifier	1.007:ON12345^G$_S$
OAI	1.008	Originating Agency Identifier	1.008:ON56789^G$_S$
TCN	1.009	Transaction Control Number	1.009:ON567890000000000125^G$_S$
NSR	1.011	Native Scanning Resolution	1.011:19.69^G$_S$
NTR	1.012	Nominal Transmitting Resolution	1.012:19.69^G$_S$
GMT	1.014	Greenwich Mean Time	1.014:20170429235745Z^F$_S$

2.1.4 Fields/Tags

All fields have a tag number assigned to them. The format for each field consists of the logical record number followed by a period ".", a field number followed by a colon ":", followed by the information appropriate to that field (for example, **2.807:M**).

The tags are assigned following the ANSI/NIST standard. These tag numberings are coordinated with the tag numberings used by the FBI in their Electronic Biometric Transmission Specification (EBTS). Every North American agency will have a unique assignment of tags. For example, the RCMP is assigned tags in the 2.8 range, FBI in the 2.0 range and in other U.S. States, a different range. Interpol countries are not included in this assignment of tag numbers.

Contributor and Vendor EFCDs should not use any tag numbering in the 2.8 range for their own purposes even if the tag number is not implemented in this version of the ICD.

2.1.5 RTID Agency Identifier (ORI)

The RCMP assigns a unique 7-character alphanumeric RTID Agency Identifier to every agency requiring access to the RTID System. The RTID Agency Identifier will be populated in the Originating Agency Identifier (OAI tag 1.008) for incoming transactions and in the Destination Agency Identifier (DAI tag 1.007) for responses from the RTID System. The RTID Agency Identifier will be populated as the prefix in the Transaction Control Number (TCN tag 1.009). Additionally, a numeric-equivalent RTID Agency Identifier will be embedded in the Document Control Number (DCN tag 2.800).

The alphanumeric RTID Agency Identifier has the following format:

AANNNNN

Where

- o **AA:** a 2-character alpha province code,
- o **NNNNN:** a 5-digit number.

Example: ON12345 is the alphanumeric RTID Agency Identifier assigned to an agency in Nova Scotia.

The numeric RTID Agency Identifier has the following format:

nnNNNNN

Where

- o nn: a 2-digit numeric province code,
- o NNNNN: the last 5-digits of the alphanumeric RTID Agency Identifier.

Example: NS12345 will use numeric RTID Agency Identifier 0312345 when generating a DCN. The alphabetic province code NS converts to the numeric province code 03.

Refer to Table A-4: Province Codes in Appendix A - Tables for a list of alphabetic and numeric-equivalent province codes.

2.1.6 Transaction Control Number (TCN)

The TCN is used to uniquely identify a specific transaction. All transactions contain a TCN that is populated in TCN tag 1.009 of the Type-1 record.

For incoming transactions, the TCN is automatically generated by the Submitting Agency device or system.

The TCN shall be composed of the agency identifier and a sequence number. The Contributing Agency's system may reuse previously generated TCNs when all possible unique TCNs have been used (i.e. TCN rollover). The TCN rollover means that the sequential portion of the TCN and should complete the full cycling before reusing the TCN numbers. This is to avoid duplicate TCNs.

The length and format of the TCN in ICD 2.1.1 differs from NPS-NIST ICD 1.7.8. In ICD 2.1.1, the TCN length has been increased from 13 to 20 digits and the character type has been broadened from numeric to alphanumeric.

The TCN is essential to tracking a transaction through the RTID workflows. It may also be used by the EFCD Case Management system for tracking purposes and to connect corresponding responses from the RTID System to the original submission. Especially if an ERRT was received and the submission resent to the RTID System.

A response transaction will contain a TCN as generated by the RTID System. The RTID-generated TCN does not follow the exact formatting rules as the TCN generated by the submitting system. The original TCN of the Contributor's submission (or TCN of most recent resubmission) will be referenced in the Transaction Control Reference Number (tag 1.010).

Notes on Alphanumeric TCNs:

- The sequence number portion of TCN shall consist of numerics only. The use of alphabetic characters in the 13 digit sequence number portion is not permitted;

- The sequence number portion should be serially incremented by a value of one (1) for each successive submission sent from the Contributor's system having an assigned RTID Agency Identifier. The reservation of TCN number ranges within the available 13 digits can lead to future problems of duplicate TCNs being assigned and can result in submission rejection by RTID.

2.1.7 Transaction Control Reference (TCR) Number

All responses from the RTID System will reference the TCN of the last incoming transaction in the Type-1 field Transaction Control Reference Number (TCR tag 1.010). Incoming transactions shall never contain a TCR.

Below is an example of a workflow of one transaction. The format of the DCN, TCN and TCR are kept simple for illustration purposes only. In an actual transaction they would follow the format as defined in this document.

Example:

- Initial submitted transaction: IMM: TCN=1, DCN=1
- RTID response (errors found):   ERRT: TCN=2, TCR=1, DCN=1
- Corrected, resubmitted transaction: IMM: TCN=3, DCN=1
- RTID response (acknowledgement):   ACKT: TCN=4, TCR=3, DCN=1
- RTID response (search results):   SRE: TCN=5, TCR=3, DCN=1

The second IMM request (pt 3) in the example above depicts a resubmission to correct an error. The new TCN identifies a new instance of the IMM while the original DCN is used to indicate that it is a resubmission of a previous IMM. RCMP responses (ERRT, ACKT and SRE) contain a TCR value that links to the specific instance of the submitted IMM transactions. The DCN remains unchanged throughout this dialogue.

Every subsequent, unrelated IMM requires new DCN and TCN values since the transaction represents a new enrolment to be processed by RTID.

2.1.8 Document Control Number (DCN)

All IMM and ATS transactions will contain a unique DCN created by the contributor. The DCN is the unique number that the NNS uses to carry out a dialogue pertaining to a specific transaction. Refer to Section 4.2: Type-2 Data Definitions (Descriptive Text) for format rules for the DCN.

The same DCN and TOT must be used with a new TCN when resubmitting a transaction for which a Canadian ERRT was received. The error identified in the ERRT must be corrected before resubmitting. A resubmitted transaction will fail validation if it is received with a duplicate DCN that is not in an error state on the RTID System.

Note: The same DCN cannot be used to resubmit if an ERRT is issued that indicates a duplicate DCN error has occurred.

Biographic information amendments (i.e. IMA) and Transaction-Level purges (i.e. IMP) must reference a previously submitted DCN in the Document Control Reference number (DCR, tag 2.851)

2.1.9 Data Validation

To ensure compliance with the NPS-NIST ICD, all data fields in a transaction must be validated by the EFCD or by the agency's central server prior to submitting the electronic transaction to the RTID System. The use of pick-lists and drop-down lists is encouraged.

Once received, the RTID System will validate transactions to ensure that the data conforms to this version of the ICD. Fields are validated against all the business rules including field size, character type, number of occurrences, and condition. Refer to Section 4: NIST Data Definitions and Section 5: Logical Record Formats for the transaction layouts and validation rules for each field.

A transaction that conforms to this specification will be accepted by the RTID System. A transaction will fail validation (i.e. ERRT or ERRV) if it does not conform to all the specifications in this ICD and will not be accepted until the transaction is corrected and conforms to this specification.

2.1.10 Condition

Under the Condition column in the logical record formats (Section 5: Logical Record Formats), mandatory tags are designated by the letter M, optional tags by the letter O, and conditional tags by the letter C.

A Mandatory (M) tag must be included and contain a valid value. A transaction will not pass validation if a mandatory tag is missing, blank, or invalid. For example, all transactions must provide a Transaction Control Number (TCN tag 1.009). A transaction will fail validation if this tag value is missing.

Optional (O) tags are always available for the user to populate. An optional tag should be populated and included in a transaction when the data is available. When an optional tag value is not entered by the user, the corresponding tag number must not be included in the transaction.

When an optional tag is included in a transaction, the tag shall be validated against the data format and business rules stipulated in the Logical Record Format.

When an optional tag is comprised of multiple sub-tags, each sub-tag shall be defined with a condition of M, O, or C. When such an optional tag is included in a transaction, each mandatory sub-tag must be populated. Optional sub-tags may or may not be populated, however, the transaction must be both well-formed and valid. For example, when Missing Finger or Image Reason (MFR tag 2.8084) is included in a transaction, sub-tag Finger or Image Code and Missing Reason Code must be included (M); but Missing Date need not be included (O).

Conditional (C) tags are dependent on the value entered in another tag. There are three (3) types of conditional tags:

1. Conditional-Mandatory – this means that when the condition is met, the conditional-mandatory tag or sub-tag MUST contain a valid value and be included in the transaction. Unless the condition is met, the tag or sub-tag must not be included in the transaction. If a conditional-mandatory tag is missing when the condition is met, the transaction will fail validation (i.e. there is no choice with this field, it cannot be populated unless the condition is met). A conditional mandatory tag is identified by the words, "This tag must only be included when…." For example, a Missing Finger or Image Reason (MFR tag 2.8084) must be provided if there are less than three (3) type-14 images or less than ten (10) segmented fingers in an IMM transaction. Otherwise the transaction will fail validation and an ERRT is returned.

2. Conditional-Optional – this means that when the condition is met, the conditional-optional tag or sub-tag MAY contain a value or be included in the transaction. Unless the condition is met, the tag or sub-tag must not be included in the transaction or contain a value. If a conditional-optional tag is included when the condition is not met, the transaction will fail validation (i.e. this field has a choice, it can be populated if desired; however, only if the condition is met). A conditional-optional tag is identified by the words, "This tag can only be populated if…." For example, sub-field Given Name 2 in Primary Name (NAME tag 2.806) may only be included when Given Name 1 contains a name.

3. Optional, Conditional-Mandatory – this means that the tag or sub-tag is always available for the user to enter a value but becomes mandatory when the condition is met. A transaction will pass validation if a tag or sub-tag contains a valid value when the condition is not met. A transaction will not pass validation if the condition is met and the tag or sub-tag is not included (i.e. this field has a choice, it can be populated if desired; however, you have to populate this field if the condition is met). The condition column will contain a value of "O, C". The notes column will contain the words "This optional tag becomes mandatory when…." For example, in the Type-14 record, Image Quality Metric (IQM, tag 14.022) is optional if the TOT is "ATS" but becomes mandatory when the TOT is "IMM" or "VER".

2.1.11 Character Types (Allowable and Special Character Sets)

Data populated in a tag or sub-tag must conform to the character type specified in the Logical Record Formats in Section 5 for the transaction type. The following table describes the Allowable and Special Character Types.

Table 2-4: Allowable and Special Character Types	
Code	**Description**
A	Alpha; refers to all non-accented upper case letters (A-Z) defined by ASCII character set from decimal 65 to 90 (hexadecimal "41" to "5A") inclusive.
B	Binary Data
D	Date; 8 numerics formatted as CCYYMMDD, where CC (Century) must be 19 to 20

Table 2-4: Allowable and Special Character Types		
Code	**Description**	
	YY (Year) must be 00 to 99	
	MM (Month) must be 01 to 12	
	DD (Day) must be 01 to the limit defined by the month and year	
	For example, 20160421 represents April 21, 2016.	
N	Numeric; refers to numbers (0-9) defined by ASCII character set from decimal 48 to 57 (hexadecimal "30" to "39") inclusive.	
S	RCMP Special Character Set; refers to allowable special characters	

S RCMP Special Character Set; refers to allowable special characters

Character Name	Character Image	Decimal	Hexadecimal
Space	<SPACE>	32	'20'
Number Sign	#	35	'23'
Dollar Sign	$	36	'24'
Ampersand	&	38	'26'
Apostrophe	'	39	'27'
Left Bracket	(	40	'28'
Right Bracket	)	41	'29'
Asterisk	*	42	'2A'
Comma	,	44	'2C'
Hyphen	-	45	'2D'
Period	.	46	'2E'

The "Special Characters Allowed" column in the Logical Record Formats in Section 5 defines additional special characters allowed per tag or sub-tag

Character Name	Character Image	Decimal	Hexadecimal
Line Feed	<LF>	10	'0A'
Carriage Return	<CR>	13	'0D'
At Sign	@	64	'40'

Note: A field cannot start or end with a special character.

2.1.12 Field Size per Occurrence

The maximum field size does not include any separators (i.e. unit, record, group, or file) but does include all alphanumeric, numeric, or special characters. For example, if a tag allows up to 30 characters then a maximum of 30 characters may be entered. If the tag contains 31 characters, the transaction will fail validation. Image tags (XX.999) do not have a maximum field size. Tags that do not have a maximum field will have a "*" in the max size column.

2.1.13 Occurrences

The occurrences column in the record layout indicates the number of occurrences allowed for the tag. Multiple occurrences are separated by the Record/Occurrence Separator (RS). Each occurrence must contain a valid value as per the tag definition in Section 5: Logical Record Formats

2.1.14 Identification Flat Images (ID Flats)

ID Flat transactions contain a total of three (3) images – two (2) plain impressions of the four (4) fingers from each hand captured simultaneously (code 13 & 14) and one (1) plain impression of both thumbs also captured simultaneously (code 15). This ICD requires that ID Flat images are included as Type-14 records. Coordinates for each individual finger segment position are required for each Type-14 record.

For more information about encoding ID Flats, refer to Section 5.15: Type-14 Logical Record – Fingerprint Image Record.

2.1.15 Rolled and Plain Images

Transactions with rolled and plain images can contain up to a total of fourteen (14) images – ten (10) rolled impressions of each individual finger (code 01 to 10), two (2) plain impressions of each individual thumb (code 11 & 12), and two (2) plain impressions of the four (4) fingers from each hand captured simultaneously (code 13 & 14). This ICD requires that Rolled and Plain images are encoded as Type-14 records. Coordinates for finger segment positions are not required for any Rolled and Plain image record.

For more information about encoding Rolled and Plain fingerprints, refer to Section 5.15: Type-14 Logical Record – Fingerprint Image Record.

2.1.16 Poor Quality or Missing Images

Whenever possible, an impression of a finger should always be taken regardless of the quality of the impression. Poor Quality is defined as a finger receiving a poor quality score as defined by the NIST Fingerprint Image Quality (NFIQ) scale. If an impression is taken and the EFCD detects that an image quality is poor, and, after several attempts, it is impossible to get a better quality impression, a reason must be entered in Fingerprint Quality Override (FQO tag 2.893).

If it is impossible to take a fingerprint impression in either the rolled or plain image or if it is impossible to take the entire plain image, a reason must be entered in Missing Finger or Image Reason (MFR tag 2.8084).

2.2   Fingerpirnt Image requirements

This section describes the minimum requirements that must be met before a contributor may begin submitting Immigration transactions to the RTID System.

2.2.1   RCMP-NPS-NIST COMPLIANCY AND SCANNER CERTIFICATION

A Vendor's system solution (hardware and software) must be certified for NPS-NIST-ICD compliancy before the system will be permitted to submit specific transactions as defined in this NPS-NIST-ICD 2.1.1. Once a Vendor's software solution passes the RCMP certification process, the scanner block / flatbed scanner will be tested within the specific Vendor solution to ensure that the captured fingerprint images are of acceptable quality. As a prerequisite to RCMP scanner certification, the scanner block / flatbed scanner must be listed on the FBI Certified Products List (https://www.fbibiospecs.cjis.gov/Certifications).

Generally, finger/palm prints image data is based on the ANSI/NIST-ITL 1-2011 update 2015 version of the standard although there are some deviations from this version of the standard.

For more information about scanner certification, refer to Scanner Block Certification Specifications in Section 1.7 References.

2.2.2   RCMP Fingerprint Image Quality Specifications

As stated above as part of the certification process, the RCMP will conduct an image quality assessment of the digital images created by the combination of the scanner block / flatbed scanner and the Vendor's software to ensure they are free of specific anomalies.

- Electronic images must be of sufficient quality to allow for:

- Conclusive fingerprint comparisons (identification or non-identification decision);

- Fingerprint classification;

- Automatic feature detection; and

- Overall Automated Fingerprint Identification System search reliability.

For more information about the image quality assessment refer to Scanner Block Certification Specifications in Section 1.7 References.

2.2.3   WSQ Gray-Scale Fingerprint Image Compression Specification

Contributor systems must compress fingerprint images using Wavelet Scalar Quantization (WSQ) for all ICD 2.1.1 transactions containing image records. All new devices certified by the RCMP must implement WSQ compression using version 3.1 or higher. Existing devices previously certified at a lower WSQ version can continue to operate with a known deficiency for ID Flats (thumbs image) until such time that the RCMP deprecates the older WSQ version.

When contributors compress images using WSQ, the RCMP requires the compression ratio of transmitted fingerprint images to be 18:1 or less on average for Identification Flats (ID Flats), measured over multiple submissions. Furthermore, for sets of rolled and plain fingerprint images, the image compression ratio must be 15:1 or less on average, measured over multiple submissions.

The RCMP monitors compression ratios for each contributor. Whenever the calculated average across many submissions is consistently higher than one of the above thresholds, the RCMP may request remedial action be taken by the identified contributor.

Refer to Sec. 1.7 References WSQ Gray-Scale Fingerprint Image Compression Specification, for more information about WSQ requirements.

2.2.4 Data Format for the Interchange of Fingerprint Information

The data format must be compliant with the ANSI/NIST-ITL 1-2011 – Update 2015 standard.

2.3 Electronic Fingerprint Capture Device (EFCD)

EFCD devices refer to computer-based systems that digitize biometric images (fingerprints, palm prints, photo). Fingerprints/palm prints are captured directly from the subject's hand (Livescan) or by scanning a fingerprint and optionally palm print card (Cardscan). Photos are captured directly by a camera (Livescan/Cardscan) or scanned (Cardscan). They also include a means to enter biographic, demographic, and/or criminal information. If implemented, the EFCD can exchange information with the contributor's Records Management System (RMS). The contributor must be able to create an RCMP approved secure (encrypted) network connection with the RTID System in order to send the electronic NPS-NIST files and to receive responses back.

This ICD is not intended to provide a software specification or the specifics of a good graphical user interface design for a Contributing Agency's EFCD. Vendors should work closely with their clients and the RCMP to ensure that the user interface functions and features of the EFCD adequately meet their needs and captures data accurately and correctly. The EFCD should prevent the user from entering incorrect data. A number of recommended features are described below.

2.3.1 Basic Administration

The devices should support basic administration features that include but are not limited to the following:

- User ID and password for login at the operating system and application level;

- Two factor authentication for connection to RCMP networks may be required;

- Locked screensaver for workstations inactive after a predefined time;

- Backup / restore / purge / archive processes;

- Operate in both official languages – English and French – where applicable;

- A training mode that allows users to practice and become familiar/comfortable with the use of the EFCD by capturing biometric and demographic data without actually submitting transactions to the RTID System;

- Support System Table updates received from the RTID System;

- Virus Protection; and

- Administrator configuration functionality

2.3.2 Basic Case Management

Case management should provide features including but not limited to the following:

- Fully capture transactions of the types that the Contributing Agency is permitted to submit;

- Monitor transaction status;

- Fully view transaction details and their responses;

- Generate a unique DCN and TCN combination per new transaction;

- Amend existing transactions and resubmit with the same DCN and a new TCN when an error is returned;

- Retain and delete transactions and their replies by DCN/TCN for a specified period of time;

- Display transactions and their responses (e.g., IMM, VER, SRE, ERRT, etc.) in a user friendly format; and

- Print the transactions (e.g., IMM, VER, SRE, ERRT, etc.) in an RCMP approved format on an FBI certified printer.

2.3.3 Bilingual Support

It is recommended that devices are capable of operating in either English or French. Users should be able to do all processing in either language, including a selection of drop-downs, pick-lists, tag names, and on-line help. Accents are not supported within RTID and all data is stored in capitals.

2.3.4 Storage

An EFCD should have the ability to store transactions for a configurable period of time. This is necessary in the event the RTID System is offline. It also allows an agency to correct any invalid data (i.e. biometric or demographic data) if the RTID System returns an Error Tenprint Transaction (ERRT).

2.3.5 System Table Updates

The System Table Version Number (STV tag 2.8911) is a mandatory tag in all TOTs. This number indicates the version of RTID System tables being used. If any of the reference tables, such as the Fingerprint Quality Override Table (FQO tag 2.893) are updated, the System Table Version Number will be incremented. These tables may be updated at any time. Vendors should design their systems to allow RTID System table updates easily and quickly. The mechanism by which RCMP-NPS will distribute new version of system tables is to be determined. Updates to the system tables do not require new versions of this NPS-NIST-ICD.

2.4   Printers

Certified printers must be capable of printing the RTID System finger/palm print forms (Criminal, Civil, and Refugee) as well as the responses from the RTID System. The printer's principle function is to produce 1:1 fingerprints that have met formatted requirements as specified in EBTS v10.0 Appendix F and ANSI/NIST in order to support fingerprint comparison.

2.5   FingerPrint Sequence Checks

The EFCD must run a sequence check to ensure that there are no position errors in the fingerprint images.

For ID Flats, the EFCD must run a segmentation validation on each image to ensure that there are no segment position errors:

- For image number 13 (Right Four) with no missing finger, the segment positions are encoded as finger numbers 02, 03, 04, 05, and the coordinates for segment position are arranged from left to right within the image;

- For image number 14 (Left Four) with no missing finger, the segment positions are encoded as finger numbers 07, 08, 09, 10, and the coordinates for segment position are arranged from right to left within the image;

- For image number 15 (Left and Right Thumb) with no missing thumbs, the segment positions are encoded as finger numbers 06 and 01, and the coordinates for segment position are arranged from right to left within the image.

2.6   Network Considerations

The EFCD must be capable of establishing a secure Virtual Private Network (VPN) that will allow the contributor to connect to the RTID System. This includes all security issues such as certificate-based 2 Factor Authentication, encryption, network protocols, ports, firewalls, etc.

2.7   NIST Test Environment

Contributors will have the ability to submit test cases to a separate RCMP NPS-NIST test server. The NPS-NIST test server will perform validation of submissions. Arrangements must be made in advance with RCMP to allow proper configurations.

2.8   RTID Agency Profile

The RTID System maintains an Agency Profile for each authorized Contributing Agency based on the ORI (RTID Agency Identifier). The Agency Profile contains information such as the transactions that the agency is authorized to submit and an email address that will be used to send responses back to the agency.

3. Types of Transactions

The table below lists the NPS-NIST transactions defined in this ICD to support the various types of Immigration transactions. The transactions in this table are defined in more detail later in this section.

Table 3-1: Types of Transactions (TOTs)				
NPS-NIST Immigration Transactions	**TOT**	**Response**	**Error**	**Acknowledge**
Immigration Enrolment Submission	IMM	SRE	ERRT	ACKT
Anonymous Tenprint Search	ATS	SRE	ERRT	ACKT
Verification	VER	SRV	ERRV	n/a
Immigration File Amend	IMA	IMAR	ERRT	ACKT
Immigration File Purge	IMP	IMPR	ERRT	ACKT
NPS-NIST Notification Transaction – sent by RTID; no response transaction required				
Unsolicited Criminal Notification	UCN	n/a	n/a	n/a

3.1 Tenprint Transactions

This group of transactions includes the IMM, ATS and the VER.

Note: These transactions must include at least one (1) fingerprint image

3.1.1 Immigration Submission (IMM)

This transaction is used to submit fingerprints for enrolment into the RTID System on behalf of IRCC and CBSA.

The IMM transaction will include the following logical records:

- 1 Type-1 Header Record;
- 1 Type-2 Record (Data Descriptors); and
- 1 – 3 Type-14 Records (Two (2) plain impressions of the Four (4) fingers obtained simultaneously from each hand and one plain impression of both thumbs. Finger Number (FGP) 13, 14 and 15).

The possible response transactions to the IMM transaction could include the following TOTs:

- 0 – 1 Acknowledgement Tenprint (ACKT);
- 0 – 1 Search Results (SRE); and
- 0 – N Tenprint Transaction Error (ERRT).

3.1.2 Anonymous Tenprint Search (ATS)

This transaction is used to submit fingerprints from one of the member countries of the Five Country Conference (FCC) for search only and are not retained.

The ATS transaction will include the following logical records:

- 1 Type-1 Header Record;

- 1 Type-2 Record (Data Descriptors);

- 1 – 14 Type-14 Records [1];

The possible response transactions to the ATS transaction could include the following TOTs:

- 0 – 1 Acknowledgement Tenprint (ACKT);

- 0 – 1 Search Results (SRE); and

- 0 – N Tenprint Transaction Error (ERRT).

[1] The Type-14 Records in an ATS transaction can be provided in one of three (3) **mutually exclusive** formats:

Identification Flats (ID Flats):

1. Two (2) plain impressions of the 4 fingers obtained simultaneously from each hand and one plain impression of both thumbs, Finger Numbers 13, 14 and 15. Individual fingerprint segment positions are required for each finger in an image.

Rolled and Plain Images (one of two formats):

2. 14-Print consisting of ten rolled impressions of each finger obtained individually, plus two plain impressions of the 4-fingers obtained simultaneously from each hand and one plain impression of each thumb taken individually, Rolled Fingers 01 – 10, plus plain images 11, 12, 13 and 14. Fingerprint segment positions are not required for the 14-Print variant.

3. 13-Print consisting of ten rolled impressions of each finger obtained individually, plus two plain impressions of the 4-fingers obtained simultaneously from each hand and one plain impression of both thumbs taken simultaneously, Rolled Fingers 01 – 10, plus plain images 13, 14 and 15. Fingerprint segment positions are not required for the 13-Print variant.

3.1.3 Verification Submission (VER)

This transaction is used to submit fingerprints to be matched 1:1 against the RTID System on behalf of the Canadian Border Services Agency (CBSA).

Note: A Verification transaction will not receive an acknowledgement transaction from the RTID System.

The VER transaction will include the following logical records:

- 1 Type-1 Header Record;

- 1 Type-2 Record (Data Descriptors); and

- 1 – 3 Type-14 Records (Two (2) plain impressions of the 4 fingers obtained simultaneously from each hand and one plain impression of both thumbs. Finger Numbers 13, 14 and 15).

The possible response transactions to the VER transaction could include one of the following TOTs:

- 0 – 1 Search Results (SRV); or

- 0 – N Verification Transaction Error (ERRV).

3.2   Non-Biometric Transactions

This group of transactions includes the IMA and the IMP transactions and do not contain fingerprint images.

3.2.1   Immigration File Amend (IMA)

This transaction is submitted by IRCC to add or modify Type-2 data on an individual Immigration file held on the RTID system. The external agency can perform two types of amendments: a change to the file retention end-date or a change to the biographic data. For biographic data changes, the external agencies must provide the DCN of the submission to be changed and **all** the biographic information, not just the information that has changed.

For example, if the date of birth was incorrectly entered on the enrolment (i.e. IMM), an IMA would be sent that references the DCN of the IMM plus it must contain all the biographic data (i.e. primary name, sex, new date of birth, other names, etc.) not just the new date of birth. This also applies to Alias/Other Names. Should only one of several Alias Names need to change, all Aliases, including the one that has changed must be provided in the IMA.

The IMA transaction will include the following logical records:

- 1 Type-1 Header Record; and

- 1 Type-2 Record (Data Descriptors).

The possible response transactions to the IMA transaction could include the following TOTs:

- 0 – 1 Acknowledgement Tenprint (ACKT);

- 0 – 1 Immigration Amend Results (IMAR); or

- 0 – 1 Transaction Error (ERRT).

The IMA transaction will include the following logical records:

- 1 Type-1 Header Record; and

- 1 Type-2 Record (Data Descriptors).

Notes:

- A File Level amendment (e.g. retention end date) and a Submission Level amendment (e.g. biographic data change) cannot be combined within the same IMA transaction;

- Only Immigration Series 2 subject file numbers (i.e. 12-digit number starting with "5") can be amended using an IMA transaction;

- For Immigration Series 1 subject file numbers (i.e. 12-digit number starting with "33") a request for a manual amendment is required. An IMA transaction cannot be used.

3.2.2 Immigration File Purge (IMP)

This transaction is submitted by IRCC to delete either the entire subject file including all DCNs (i.e. File Level Purge) or an individual enrolment within a subject file (i.e. Submission Level Purge) leaving the subject file open. Once an entire subject file or individual enrolment is purged, it cannot be recovered.

The IMP transaction will include the following logical records:

- 1 Type-1 Header Record; and

- 1 Type-2 Record (Data Descriptors).

The possible response transactions to the IMP transaction could include the following TOTs:

- 0 – 1 Acknowledgement Tenprint (ACKT);

- 0 – 1 Temporary Resident Purge Response (IMPR); and

- 0 – 1 Transaction Error (ERRT).

Notes:

1. An IMP transaction can be either be a File Level purge (i.e. no DCN referenced in tag 2.851) or a Submission Level purge (i.e. a valid DCN referenced in tag 2.851);

2. Immigration Series 2 subject file numbers (i.e.12-digit number starting with "5") can be purged using an IMP transaction at either the File or Submission Level.

3. Immigration Series 1 subject file numbers (i.e. 12-digit number starting with "33") created after the date of ICD 2.1.1 inception using an ICD 1.7.8 REF transaction can be purged using the IMP transaction at both the File and Submission Level.

4. Immigration Series 1 subject file numbers (i.e. 12-digit number starting with "33") created piror to the date of ICD 2.1.1 inception using an ICD 1.7.8 REF transaction can only be purged using the IMP transaction at a File Level. Purges at the Submission Level are not available.

3.3 Results and Responses

3.3.1 Tenprint Search Results (SRE)

This response transaction contains the results of the tenprint search from the RTID System. An SRE may contain identifications to several file types. If there are any errors associated with a tenprint IMM submission, then an ERRT is returned instead of an SRE.

The SRE Transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.3.2 Verification Search Results (SRV)

This response transaction contains the results of the 1:1 fingerprint verification from the RTID System in response to a verification (VER) transaction. If there are any errors associated with the verification submission, then an ERRV will be returned.

The SRV Transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.3.3 Immigration Amend Response (IMAR)

This response transaction contains the results of the Immigration Amend (IMA) transaction from the RTID System. If there are any errors associated with an Immigration Amend transaction, then an ERRT is returned.

The IMAR transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.3.4 Immigration File Purge Response (IMPR)

This response transaction contains the results of the Immigration Purge (IMP) transaction from the RTID System. If there are any errors associated with an Immigration Purge transaction, then an ERRT is returned.

The IMPR transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.4   Acknowledgements

Acknowledgement transactions are returned to confirm that the submitted tenprint transaction (IMM or ATS) has passed the initial NIST validation and fingerprint quality check and is being processed. An error can still be returned even if an acknowledgement has been sent to the contributor

3.4.1   Acknowledgement (ACKT)

The ACKT transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.5   Error Transactions

When the RTID System receives a transaction, the content of the transaction are validated to ensure that it conforms to the NPS-NIST ICD standards with regard to mandatory and conditional tag rules, tag format/content rules, image type and image quality rules, etc. The RTID System also performs a validation to ensure that the contributing agency is authorized to submit the TOT. If the transaction fails this validation, an error is returned. The intent of the error is to allow an agency to correct the error and resubmit the transaction.

3.5.1   Transaction Error (ERRT)

This transaction is returned by the RTID System in response to a transaction that contains errors. The ERRT will contain details about the error(s) detected. An ERRT related to fingerprint quality can be returned even after an ACKT has been issued. An ERRT transaction is sent back for Immigration Enrolments (IMM), Immigration Amendments (IMA), Immigration Purges (IMP), and Anonymous Tenprint Searches (ATS). The ERRT will include all errors detected; therefore more than one error reason may be included in the transaction.

The ERRT transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.5.2   Verification Transaction Error (ERRV)

This transaction is returned by the RTID System in response to a Verification (VER) transaction that contains errors or inadequate fingerprint images.

The ERRV Transaction will include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

3.6   Notification Transactions

3.6.1   Unsolicited Criminal Notification (UCN)

This unsolicited TOT is sent to IRCC and/or CBSA when a criminal enrolment (ie. CAR-Y) or a criminal inquiry (i.e. CAR-N) identifies to an immigration file.

The UCN Transaction shall include the following logical records:

- 1 Type-1 Header Record; and
- 1 Type-2 Record (Data Descriptors).

4.   NIST Data Definitions

The following section contains detailed descriptions of the individual tags used in the various logical records supported with the NPS-NIST ICD 2.1.1. They are sorted numerically. Refer to the logical record definitions in <u>Section</u> 5 –Logical Record Formats, to see which tags are required for each TOT.

4.1   Type-1 Data Definitions (Header Record)

The following section describes the data contained in the tags of the Type-1 header record. A Type-1 logical record is mandatory and will be included with every transaction. The last tag in the Type-1 record MUST contain a File/Record type separator (^F_S)

1.001: LEN   Logical Record Length

This mandatory ASCII tag contains the total count of the number of bytes in the transaction. this Type-1 logical record. The total count is made up of every character of every tag contained in the record and includes the count of all separator characters. The number of characters added to the record by the LEN tag itself must be included in calculating the value of LEN.

1.002: VER   ANSI/NIST Version Number

This mandatory four-byte ASCII tag is to be used to specify the current version number of the ANSI/NIST specification implemented by the software or system creating the file. The format of this tag consists of four numeric characters. The first two characters specify the major version number. The last two characters are used to specify the minor revision number.

The value to be entered in this tag is "0502" which represents ANSI/NIST-ITL 2011 Update: 2015. Previously certified equipment encoding "0300" can continue to operate until such time that the RCMP deprecates this value.

1.003: CNT   File Content

This mandatory tag identifies the record types included in the file. The first occurrence lists the total number of logical records included in the file (excluding the type-1 record). Each subsequent occurrence will list the record type number and its associated IDC number (refer to individual record types for more information).

For example, if a file contains the following record types

Table 4-1: Record Types Example	
Record Type Number	**IDC Number**
1	04
2	00
14	01
14	02

Table 4-1: Record Types Example	
Record Type Number	**IDC Number**
14	03

Tag 1.003 for the above file would contain the following:

1.003:1^U_S04^R_S2^U_S00^R_S14^U_S01^R_S14^U_S02^R_S14^U_S03^G_S

The first occurrence 1 & 04 means that there are 4 records not including the Type-1 record (1 Type-2 record and 3 Type-14 records) in this file. Each subsequent occurrence indicates the Record Type Number & the IDC number of that record: 2 & 00, 14 & 01, etc.

1.004: TOT   Type of Transaction

This mandatory tag contains an identifier, which designates the TOT and therefore how the RTID System will validate and process the transaction. Refer to Section 3 – Types of Transactions for a list of valid TOTs.

1.005: DAT   Date of submission

This mandatory tag contains the local date that the transaction was submitted to the RTID System and not the date the transaction was created.

For example; if a transaction was created on January 02, 2015 but was submitted on January 15, 2015 then this tag would contain the value 20150115. If an error was returned and this transaction was resubmitted on January 20, 2015 then this tag would contain 20150120. The RTID System does not accept future-dated transactions after time-zone adjustment.

The RTID System does not accept future-dated transactions after time-zone adjustment.

1.006: PRY   Priority

This mandatory tag contains a single information character to designate the priority of the transaction. Priorities are 1 to 9 where 1 is the highest and 9 is the lowest.

For ICD 2.1.1, most transaction priority values are assigned by RTID to ensure that pre-determined service times are met. In most circumstances, RTID observes a target Service Level Objective (SLO) according to the TOT received. The exception to this general rule is defined as follows:

IMM Immigration Enrolments

For IMM transactions received with 1.006 Priority set to a value of 4, RTID shall process the enrolment according to an Expedited SLO, defined for Biometric Expansion as two hours. This is the standard priority setting expected by RTID for an expedited IMM enrolment. However, should RTID receive an IMM transaction priority value of 1 to 3, the transaction shall also be processed according to the Expedited SLO, the same as for priority value 4.

For IMM transactions received with 1.006 Priority set to a value of 8, RTID shall process the enrolment according to the established Regular SLO of three business days. This is the standard priority setting expected by RTID for a regular IMM enrolment. Should RTID receive an IMM transaction priority value outside the range of 1 to 4, the transaction shall be processed according to the Regular SLO target, the same as for priority value 8.

In order for RTID to determine the appropriate SLO target for IMM transactions, the TOT (i.e. IMM) and priority setting (either 4 or 8) must be replicated by the sender in the SMTP email wrapper used to deliver the transaction to RTID. Please refer to the specifications in the NPS-NIST Message Guidelines (RDIMS #21047) for details of the email encoding requirements.

1.007: DAI   Destination Agency Identifier

This mandatory tag contains the 7-character, alphanumeric RTID Agency Identifier of the agency designated to receive the transaction. When submitting a transaction to the RTID System, this tag contains the RTID Agency Identifier of the RTID System (provided by RCMP). In responses from the RTID System, this tag contains the RTID Agency Identifier of the Submitting Agency of the incoming transaction. Any transactions containing an invalid Destination Agency Identifier will be rejected.

Refer to Section 2.2.3 RTID Agency Identifier (ORI) for the format of the Destination Agency Identifier.

1.008: OAI   Originating Agency Identifier

This mandatory tag contains the 7-character, alphanumeric RTID Agency Identifier of the agency originating the transaction. When submitting a transaction to the RTID System this tag contains the RTID Agency Identifier of the Contributing Agency. In responses from the RTID System this tag contains the RTID Agency Identifier of the RTID System. Any transactions containing an invalid Originating Agency Identifier will be rejected.

Refer to Section 2.2.3 RTID Agency Identifier (ORI) for the format of the Originating Agency Identifier.

1.009: TCN   Transaction Control Number

This mandatory tag contains a transaction control number used to identify a specific transaction. For incoming transactions, the TCN is generated by the Contributing Agency device or system. For responses from the RTID System the TCN does not follow the same formatting rules as for incoming transaction.

Incoming transactions will contain a 20-digit numeric TCN in the following format:

<7-character RTID Agency Identifier> + <13-digit sequence number>

Where

7-character RTID Agency Identifier	the RTID Agency Identifier of the submitting EFCD
13-digit Sequence Number	should start at 0000000000000 and increase by 1 for every transaction

Example:

NS123450000000000001   = <NS12345> + <0000000000001>

Where:

NS12345   is the RTID Agency Identifier of this agency in Nova Scotia

0000000000001   is the 13-digit sequence number

1.010: TCR   Transaction Control Reference Number

This optional tag will only be populated in response transactions by the RTID System, referencing the TCN of the submitted transactions. If there is no previous transaction to reference this tag should not be included in the file.

Example:

IMM:	TCN = 1, DCN=1;
ACKT:	TCN = 2, TCR = 1, DCN = 1; and
SRE:	TCN = 3, TCR = 1, DCN = 1.

1.011: NSR   Native Scanning Resolution

This mandatory tag specifies the native scanning resolution of the AFIS or other fingerprint or palm print image capture device supported by the originator of the transmission. This tag permits the recipient of this transaction to send response data at a transmitting resolution tailored to the Native Scanning Resolution (if it is able to do so) or to the minimum scanning resolution. This tag contains five bytes specifying the native scanning resolution in pixels per millimetre. The resolution is expressed as two numeric characters followed by a decimal point and two more numeric characters (e.g. 19.69). This tag is required because the interchange of fingerprint information between systems of the same manufacturer may, in some instances, be more efficiently done at a transmitting resolution equal to the native scanning resolution of the system rather than at the minimum scanning resolution specified in this standard. If no images are present in the NIST packet the value should be 00.00.

1.012: NTR   Nominal Transmitting Resolution

This mandatory tag specifies the nominal transmitting resolution for the fingerprint image or images being exchanged. It has little to no relevance for non-fingerprint applications. This tag contains five bytes specifying the transmitting resolution in pixels per millimetre. The resolution is expressed as two numeric characters followed by a decimal point and two more numeric characters (e.g. 19.69). The transmitting resolution is within the range specified by the transmitting resolution requirement. If no images are present in the NIST packet the value should be 00.00.

1.014: GMT   Greenwich Mean Time

This is an optional tag which eliminates the local time inconsistencies encountered when a transaction and its response are transmitted between two places separated by several time zones. If used, it contains the universal date and 24-hour clock time that a transaction was initiated, independent of time zones. It is represented by a 15-character string that is the combination of the GMT date and time and concludes with a "Z" (for example: *ccyymmddhhMMssZ*). If an incoming transaction contains a GMT value that is dated in the future when compared to the RTID System derivation of GMT, the transaction will fail validation.

For ICD 2.1.1 transactions, this tag will be populated in the Type 1 records that accompany response and notification transactions (SRE, IMAR, IMPR, ACKT, ERRT and UCN) issued by RTID. It is not populated for SRV and ERRV transactions.

4.2   Type-2 Data Definitions (Descriptive Text)

The following section describes the data contained in the tags of the Type-2 logical record. A Type-2 logical record is mandatory and will be included with every transaction. The last tag in the Type-2 record must contain a File/Record type separator (^F_S).

2.001: LEN   Logical Record Length

This mandatory ASCII tag contains the total count of the number of bytes in this Type-2 logical record. The total count is made up of every character of every tag contained in the record and includes the count of all information separators. The number of characters added to the record by the Logical Record Length field itself must be included in calculating the value of Logical Record Length.

2.002: IDC   Image Designation Character

This mandatory tag is used to identify the user-defined text information contained in this record. The Image Designation Character contained in this tag is the Image Designation Character of the Type-2 logical record as found in the file content tag of the Type-1 record.

2.800: DCN   Document Control Number

The Document Control Number is used to uniquely identify and track a particular submission throughout its lifetime. Each DCN must be unique and in the following format:

CYYJJJNNNNNNNNnnnnESK

Where;

C   Current century ("0"=19xx, "1"=20xx);

YY   Last two digits of current year (i.e. "16" if 2016);

JJJ   Julian Date or days since January 1st (e.g. "032" if Feb 01);

NNNNNNN 7-digit numeric RTID Agency Identifier of the Submitting Agency;

nnnn   A 4-digit sequential number that ensures uniqueness – see below;

E   External Format Flag – see below;

S   Document Flag – see below; and

K   Check digit (see Check Digit Calculation below).

External Format Flag

The external format flag can be assigned by the contributor to effectively extend the range of unique DCN values available on a daily basis. Permissible values for External Format Flag are 1, 2 and 3.

Document Flag

The document flag indicates the type of request. Always use value 0 for this tag.

Sequential Number

The sequential number starts at 0000. It can be reset to 0000 either daily or when it reaches 9999. Use whichever method works best to ensure the uniqueness of the DCN.

Check Digit Calculation

The check digit is calculated using modulo 10. It uses alternating 1, 3 weightings. The weightings are arranged from right to left so that the farthest right number receives a 3, the next number receives a 1, then a 3, and so on until it reaches the farthest left number. So when calculating the DCN check digit, the 19th character would receive a 3 weighting, the 18th character a 1, etc. Once the check digit is calculated it is added after the 19-digit number to create a 20-digit DCN which is entered in the DCN field (DCN tag 2.800).

Below is an example of calculating the check digit for a 6-digit number which is used for simplicity. The exact same process is used to calculate the check digit for the 20-digit DCN.

Data Characters: 5 4 3 8 2 7

Weights: 1 3 1 3 1 3

Weighted Sum: (1x5) + (3x4) + (1x3) + (3x8) + (1x2) + (3x7) = 67

Check Digit: 3 (67 + 3 = 70, the next integer ending in 0)

Final Number (ending with the check digit): 5438273

2.806: NAME   Primary Name

This tag is used to capture the individual's primary name (Surname, Given Names 1 to 4). Enter the name found on their identification cards or the name they are charged under. All names must not begin or end with a space or any other allowable special character or contain only a space or any other allowable special character.

Given names must be populated in order from 1 to 4 with no empty fields allowed. For example, if a Given Name 3 is provided, then a Given Name 1 and 2 must also be provided.

2.807: SEX   Sex

This tag is used to report the subject's sex. The entry is a single character selected from the following table.

Table 4-2: 2.807 – Sex Codes		
Code	**English Description**	**French Description**
M	MALE	MASCULIN
F	FEMALE	FEMININ
U	UNKNOWN	INCONNU

2.819: LGF   Language Flag

This tag denotes the language of the transaction. The language must be consistent throughout the submission with the value of this field. It is not permissible to mix French and English in the same submission. Responses returned by RTID shall contain messages and descriptions as applicable by this tag value.

Table 4-3: 2.819 – Language Flag		
Code	**English Description**	**French Description**
E	English	Anglais
F	French	Français

2.824: OTN   Other Names/Aliases

This tag is used to report other names that are associated with the individual. These names could be a maiden name, former name (if they changed their name) nicknames, street names, etc.

Given names must be populated in order from 1 to 4 with no empty fields allowed. For example, if a Given Name 3 is provided, then Given Name 1 and 2 must also be provided. Each additional name should be entered as a separate occurrence within the tag.

All sub-tags must not begin or end with a space or any other allowable special character, or contain only a space or any other allowable character.

This tag is **not available** in the IMM transaction, but is available in the IMA to facilitate the amendment of immigration files created with either of the IMM or REF TOTs.

2.827: NMG   Narrative Message

This tag is only defined in response transactions (SRE or ERRT). It allows the RCMP to return a free-format message back to the contributor.

Note that this tag is **not** currently populated in ICD 2.1.1 transactions.

2.851: DCR   DCN Reference Number

This tag is used to reference the DCN of the submission to be amended (IMA) or purged (IMP). The validation rules for a DCR are simpler than for a DCN: when used, the DCR must reference a DCN that exists in RTID or else a validation error is generated.

In an UCN TOT the DCN referenced will be the DCN from the criminal transaction that identified to the immigration file.

2.855: SUBTP   Submission Type

This tag contains an acronym for the type of submission reported to the RCMP which results in the creation of the UCN Notification transaction. In context of an Unsolicited Notification which advises of a criminal enrolment or criminal inquiry involving an Immigration subject, the Submission Type distinguishes the TOT received by the RCMP.

Table 4-4: 2.855 – Submission Type Codes		
Code	**English Description**	**French Description**
CAR-N	Criminal Inquiry	Enquête criminel
CAR-Y	Criminal Enrolment	Enregistrement criminelle

2.856: CAI   Contributing Agency Information

This tag describes the agency responsible for the criminal submission that resulted in the creation of the UCN Notification transaction. The tag consists of three sub-tags which contain the Agency Identifier (ORI), the English Name and the French.

2.875: RRES   RCMP-NPS Results

This tag is included in a search response transaction to indicate whether the transaction is for a domestic search of the RCMP holdings (code "Y") or for a foreign search (code "N"). The RTID System will always return "Y" for this tag (foreign searches are not available in ICD 2.1.1).

Table 4-5: 2.875 – RCMP-NPS Results Codes		
Code	English Description	French Description
Y	Yes	Oui
N	No	Non

2.887: CIC   CBSA/IRCC Office Number

(Deprecated tag)

This tag formerly contained the number representing the regional CBSA/IRCC office as assigned by IRCC. This is a legacy data item that is not populated by IRCC for ICD 2.1.1 submissions. However, legacy immigration files may contain this reference and it will be returned in the SRE if it is on file

2.888: FOSS   Immigration Client Identifier

This tag is used to capture the CBSA/IRCC Immigration Client Identifier. This number is assigned by CBSA/IRCC. It was previously known as the Field Operational Support System (FOSS) Number.

2.893: FQO   Fingerprint Quality Override

If the EFCD determines that a fingerprint is of poor quality and it is impossible to get a better quality impression, this tag will indicate which finger(s) cannot be clearly imaged and the reason. A Fingerprint Quality Override is only required for fingers 01 to 10. Refer to Table A-2: Finger and Palm Codes in Appendix A for a list of codes for each finger.

The Override Reason Code must be selected from the following table

Table 4-6: 2.893 – Override Reason Codes		
Code	English Description	French Description
01	RIDGE DETAIL INDISTINCT DUE TO SUBJECT'S EMPLOYMENT	PARTICULARITES DES CRETES INDISTINCTES EN RAISON DE LA PROFESSION DE LA PERSONNE
02	RIDGE DETAIL INDISTINCT DUE TO AGE	PARTICULARITES DES CRETES INDISTINCTES EN RAISON DE L'AGE DE LA PERSONNE

Table 4-6: 2.893 – Override Reason Codes		
Code	English Description	French Description
03	RIDGE DETAIL INDISTINCT DUE TO SKIN CONDITIONS (ECZEMA, ICHTHYOSIS, WARTS, PSORIASIS, FROSTBITE, RIDGE ABERRATION)	PARTICULARITÉS DES CRÊTES INDISTINCTES EN RAISON DE L'ÉTAT DE LA PEAU (ECZÉMA, ICHTYOSE, VERRUE, PSORIASIS, ENGELURE, ANOMALIE DES CRÊTES)
04	FINGER TEMPORARILY INJURED	BLESSURE TEMPORAIRE AU DOIGT
05	FINGER IS DEFORMED / PARALYZED	DIFFORMITÉ AU DOIGT/ PARALYSIE
06	FINGER IS PARTIALLY AMPUTATED	DOIGT PARTIELLEMENT AMPUTÉ
07	FINGER IS PERMANENTLY SCARRED OR BURNED	CICATRICE OU BRULURE PERMANENTE AU DOIGT
99	OTHER	AUTRE

Note: The EFCD operator must manually enter a fingerprint quality override description when using code 99 (OTHER).

2.8005: RET   Retention Code

This tag is used to capture whether the transaction data will be retained by the RTID System. The Retention Code must be selected from the following table.

Table 4-7: 2.8005 – Retention Codes	
Type of Transaction (TOT)	Retention Code
IMM	Y
ATS	N

2.8022: DOB   Date of Birth

This tag is used to capture the individual's date of birth. It is entered in the standard date format (CCYYMMDD). Partial dates are not acceptable.

Immigration subjects must be between 12 and 130 years old at the time they are fingerprinted (DPR, tag 2.8038).

2.8038: DPR   Date Fingerprinted

This tag contains the local date that the subject was fingerprinted on the EFCD. The format is the standard date format CCYYMMDD. Partial dates are not acceptable. The Date Fingerprinted must equal or be prior to the Date of Submission (tag 1.005).

2.8044: ESD   Effective Search Date

This tag indicates the date that a fingerprint-based search was completed by the RTID System. The standard date format CCYYMMDD applies here.

2.8060: EMSG   Error Message

This tag is used to return the reason why an error transaction was sent to the contributor. This tag is broken down into the following sub-tags: Error Code and Error Message.

2.8067: IMA   Image Capture Equipment

This mandatory tag contains the make, model, and serial number of the scanner block or flatbed scanner used to digitize fingerprints. The EFCD system should automatically populate the sub-tags without the user having to manually input this information.

2.8071: ACN   Action to be Taken

This tag is used to return in an SRE, information advising the contributor to take specific action or of an action to be undertaken by the RCMP on the contributor's behalf.

Note that this tag is **not** currently populated in ICD 2.1.1 response transactions.

2.8084: MFR   Missing Finger or Image Reason

This tag is used to indicate reasons why a tenprint submission is missing one or more finger images compared to a normal set of fingerprints.

An individual finger image may be missing because it is Amputated (XX), Bandaged (UP), or, has a Physical Limitation (PL). When an entire plain image representing multiple fingers is missing, then a reason code of Missing Image (MI) shall apply. A Missing Date may also be entered if known. It must be a complete and valid date. Partial dates are not allowed.

This tag is required when any of the following conditions exist:

- Fewer than fourteen Type-14 images are present in a submission containing a 14-print set of Rolled and Plain fingerprints;

- Fewer than thirteen Type-14 images are present in a submission containing a 13-print set of Rolled and Plain fingerprints;

- Fewer than three Type-14 images are present in a submission containing a set of Identification Flats (ID Flats) arranged in a 4-4-2 configuration;

- Fewer than four finger impressions are shown within an ID Flats submission having tag 14.013 Finger Number set to 13 or 14;

- Fewer than two thumbs are shown within in an ID Flats submission having tag 14.013 Finger Number set to 15.

- Unless a finger impression is completely missing, an impression must be taken regardless of the quality of the print. A partially scarred finger should also be taken. If the EFCD determines that the fingerprint is of poor quality, a reason must be entered in Fingerprint Quality Override (FQO, tag 2.893).

- A Missing Date may also be entered for each finger flagged as missing, to indicate the date when it was amputated, bandaged or subject to physical limitations. It must be a valid date. Partial dates are not permitted.

For Immigration enrolments (i.e. IMM), valid Finger numbers are 01 to 10 and 13 to 15.

For Anonymous Tenprint Searches (i.e. ATS) **only**, Finger Numbers 01 through 15 are valid, but must be in accordance with the option chosen for the Type 14 record configuration.

Amputated (XX) or Bandaged (UP)

When a finger is amputated (XX) it means that the finger is completely amputated and therefore an impression of the finger cannot be taken since nothing remains of the finger. When a finger is bandaged (UP) it means there is a temporary situation where an impression of the finger cannot be taken due to the finger being bandaged.

When a finger is amputated (XX) or bandaged (UP) this means that the finger will be missing from both the rolled and plain images. Therefore, if Missing Finger or Image Reason (MFR tag 2.8084) contains an entry of XX or UP for a finger (image 01 to 10), then the finger must not appear in the plain impression (images 11 to 15).

Physical Limitations (PL)

When a missing finger reason of Physical Limitation (PL) is entered, this means that the finger is present but due to the physical limitation, it is impossible to take a rolled and/or plain impression of the finger.

There are three possible scenarios:

1. The physical limitation may allow the operator to take a rolled impression of the individual fingers (01 to 10) but prevent the taking of a plain impression (11 to 15).

2. The physical limitation may prevent the operator from taking a rolled impression of the individual finger (01 to 10), but allow the taking of a plain impression (11 to 15).

3. The physical limitation may prevent the operator from taking a rolled impression of the individual finger (01 to 10) and prevent the taking of a plain impression (11 to 15).

Missing Image (MI)

When the entire plain image (image 11 to 15) is missing, then the reason MI must be used.

Missing Finger or Image reason codes must be selected from the following table.

Table 4-8: 2.8084 – Missing Finger or Image Reason Codes		
Valid Codes for Fingers 01 to 10	**English Description**	**French Description**
XX	AMPUTATION	AMPUTATION
UP	BANDAGED	PANSEMENT
PL	PHYSICAL LIMITATIONS	LIMITES PHYSIQUES
Valid Code for Plain Images 11 to 15	**English Description**	**French Description**
MI	MISSING IMAGE	IMAGE MANQUANTE

Below are three (3) examples of scenarios where transactions are missing fingers and how to populate Missing Finger or Image Codes (MFR, tag 2.8084).

ID Flats (3 Type-14 Images)

A Missing Finger or Image Reason (tag 2.8084) is required when an ID Flat Tenprint transaction has one or both of the following conditions:

- Less than 10 fingers but includes all multi-finger plain images (image 13, 14, 15);

- Less than 3 multi-finger plain images (image 13, 14, 15)

Note: The RTID System will validate ID Flats in the following way:

- RTID will reject ID Flat transactions where a Type-14 record contains segmentation for a finger that is also included in the Missing Fingerprint Reason.

- RTID will also reject ID Flat transactions where the segmentation information in the Type-14 Record is missing for one or more finger segments yet the Missing Fingerprint or Image Reason (MFR tag 2.8084) does not indicate that this finger is missing.

Below are three (3) examples of scenarios where transactions are missing fingers.

Example 1 –- The individual is missing their right hand due to amputation.

In this scenario the individual is missing fingers 01 to 05. The transaction would include multi-finger plain images 14 & 15 (which only contains finger 06) but would be missing multi-finger plain image 13.

Therefore, tag 2.8084 would contain six (6) entries; an entry of "XX" for each missing finger - 01 to 05 and an entry of "MI" for missing multi-finger plain image 13.

Example 2 – The individual is missing fingers 02 and 03 due to bandages

In this scenario since fingers 02 & 03 are both bandaged, they are not available to be printed. The transaction would include all multi-finger plain images (13, 14, 15) since image 13 would still contain fingers 04 & 05 which are not bandaged.

Therefore, tag 2.8084 would contain two (2) entries; an entry of "UP" for fingers 02 and 03.

Example 3 – The individual has a physical limitation of fingers 02 and 03

In this scenario the assumption is that the physical limitation prevents the operator from taking an impression of fingers 02 & 03 but they are able to take an impression of fingers 04 & 05. Therefore, the transaction will include image 13 (which only contain fingers 04 & 05).

Therefore, tag 2.8084 would contain two (2) entries; an entry of "PL" for fingers 02 & 03.

Rolled & Plain (14 Type-14 Images)

A Missing Finger or Image Reason (tag 2.8084) is required when a Rolled & Plain Tenprint transaction contains less than fourteen (14) type-14 records. Below are three (3) examples of scenarios where transactions are missing fingers.

Example 1 –- The individual is missing their right hand due to amputation.

In this scenario the transaction would contain all images for the left hand (rolled images 06 to 10 and plain images 12 & 14) but would be missing all images for the right hand (rolled images 01 to 05 and plain images 11 & 13).

Therefore, tag 2.8084 contains seven (7) entries; an entry of "XX" for missing fingers – 01 to 05, an entry of "MI" for each missing plain images 11 and 13.

Example 2 – The individual is missing fingers 02 and 03 due to bandages

In this scenario since fingers 02 & 03 are both bandaged, they are not available to be printed. The transaction would include all plain images (11, 12, 13, and 14) since fingers 04 & 05 are not bandaged.

Therefore, tag 2.8084 would contain two (2) entries; an entry of "UP" for fingers 02 & 03.

Example 3 – The individual has a physical limitation of fingers 02 and 03

In this scenario the assumption is that the physical limitation allows the operator to take the plain impressions of the fingers but prevent the operator from taking the rolled impressions.

The transaction would therefore include all rolled impressions for the left hand (images 06 to 10) as well as all four (4) plain impressions (images 11, 12, 13, 14) but would be missing the two (2) rolled impressions from the right hand (images 02 to 03).

Therefore, tag 2.8084 would contain two (2) entries; an entry of "PL" for fingers 02 to 03.

Rolled & Plain (13 Type-14 Images)

A Missing Finger or Image Reason (tag 2.8084) is required when a Rolled & Plain Tenprint transaction contains less than thirteen (13) type-14 records. Below are three (3) examples of scenarios where transactions are missing fingers.

Example 1 –- The individual is missing their right hand due to amputation.

In this scenario, the transaction would contain all images for the left hand (rolled images 06 to 10 and plain images 14). The multi-finger plain image 15 would still be present since it would still contain thumb image 06, which is not amputated.

Therefore, tag 2.8084 contains six (6) entries; an entry of "XX" for missing fingers – 01 to 05, an entry of "MI" for missing plain image 13.

Example 2 – The individual is missing fingers 02 and 03 due to bandages

In this scenario since fingers 02 & 03 are both bandaged, they are not available to be printed. The transaction would include all plain images (13, 14, and 15) since only fingers 02 & 03 are bandaged and not available to be printed.

Therefore, tag 2.8084 would contain two (2) entries; an entry of "UP" for finger 02 & 03.

Example 3 – The individual has a physical limitation of fingers 02 and 03

In this scenario the assumption is that the physical limitation allows the operator to take the plain impressions of the fingers but prevent the operator from taking the rolled impressions.

The transaction would therefore include all rolled impressions for the left hand (images 06 to 10) as well as all three (3) plain impressions (images 13, 14, and 15) but would be missing the two (2) rolled impressions from the right hand (images 02 to 03).

Therefore, tag 2.8084 would contain two (2) entries; an entry of "PL" for fingers 02 to 03.

2.8908: CNON   Contributor Case File Number

This tag is used to capture a case or file number assigned by the contributor. When this tag is included in an incoming tenprint transaction the SRE response shall echo back the file number in a sub-tag of Contributor Supplied Reference Information (CREF tag 2.8952).

2.8910: NVN   External ICD Version Number

This is the version number of the NPS-NIST ICD used to create the transaction and must be set to 211.

2.8911: STV   System Table Version Number

This tag records the version number of the RCMP system tables used when creating the transaction. Currently, the tag must be encoded as 001.

2.8931: NFT   Name of Person Responsible for Transaction

This tag is used to capture the name or identifier of the person who enters the transaction details onto the EFCD. The Name of Official Taking Fingerprints (NOTF tag 2.8938) and the Name of the Person Responsible for Transaction (NFT tag 2.8931) do not need to be the same.

2.8938: NOTF   Name of Official taking fingerprints

This tag is used to capture the name or identifier of the person who took the fingerprint impressions either electronically onto a scanner block at a Livescan or ink rolled them onto a paper fingerprint form. The Name of Official Taking Fingerprints (NOTF tag 2.8938) and the Name of the Person Responsible for Transaction (NFT tag 2.8931) do not need to be the same.

2.8939: FPCL   Fingerprints Capture Location

This tag is used to capture the physical location of the EFCD where the fingerprint images were electronically captured. This tag must include the address of the location such as office number, building name, street address, province, country, and Submitting ORI.

2.8952: CREF   Contributor Supplied Reference Information

This tag is used to return contributor-supplied subject information and reference numbers. The sub-fields shall contain the values exactly as received by the RTID System:

- Primary Name (NAME tag 2.806);
- Date of Birth (DOB tag 2.8022);
- Sex (SEX tag 2.807);
- CBSA/IRCC Office Number (not populated in ICD 2.1.1);
- Immigration Client Identifier (not populated in ICD 2.1.1);
- Contributor Individual Reference Number (not populated in ICD 2.1.1);
- Contributor Case/File Number (CNON tag 2.8908).

2.8953: IDI   Search Result Information

This tag is used in an SRE to return the results of the fingerprint search.

Each positive identification ("I") will return, at a minimum, the following sub-tags:

- File Type Searched Code;
- Search Result Code (set to "I");
- Subject File Number;
- Surname;
- Sex; and
- Date of Birth.

Each negative identification ("N") will return, at a minimum, the following sub-tags:

- File Type Searched Code; and
- Search Result Code (set to "N")

Subject File Number* (see below).

Note: * **Subject** File Number will contain a newly assigned file number in the following situation:

1. If an incoming IMM transaction returns a Negative ("N") Search Result of the File Type Searched Code 04 (Immigration Series 2), then the Subject File Number sub-field will contain the new assigned Immigration Subject File Number.

Note: If an incoming ATS transaction returns a Negative ("N") Search Result of any File Type Searched Codes then the Subject File Number sub-field will be blank.

Each occurrence of Search Result Information is comprised of the following sub-tags:

- **File Type Searched Code** – a code value representing the type of file searched. The file type searched codes are listed in the following table.

Table 4-9: 2.8953A – File Type Searched Codes		
Code	**English Description**	**French Description**
01	CRIMINAL	CRIMINELS
02	IMMIGRATION SERIES 1	IMMIGRATION SÉRIE 1
03	*DEPRECATED VALUE*	
04	IMMIGRATION SERIES 2	IMMIGRATION SÉRIE 2

- **Search Result Code –** a code value representing the result of the search. The search result codes are listed in the following table.

Table 4-10: 2.8953B – Search Result Codes			
Code	**English Description**	**French Description**	**Note**
I	POSITIVE	POSITIF	An identification was made
N	NEGATIVE	NEGATIF	No identification was made
U	*DEPRECATED VALUE*		

-
- **Note:** Search Result codes "I" and "N" are defined for use in ICD 2.1.1. Code "U" is not available and is not provided as a search result in ICD 2.1.1.

- **Subject File Number –** the number the RTID System uses to store an individual's fingerprints. The format of the Subject File Number is as follows
  - **Criminal** – will be in the external format as either a 1-to-6 digit numeric or a 1-to-6 digit numeric followed by a letter. Examples of valid FPS numbers 12345 or 012345, 456F or 000456F
  - **Immigration Series 1** – a 12-digit number that starts with "33"
  - **Immigration Series 2** – a 12-digit number that starts with "5"
- **Surname –** the surname on file of the subject of the identification;

- **Given Name 1 to Given Name 4 –** Given names 1 to 4 on file for subject of the identification.

- **Sex –** a code representing the sex on file for the subject of the identification;

- **Date of Birth –** the date of birth on file for the subject of the identification;

- **CBSA/IRCC Office Number –** A CBSA/IRCC Office Number is returned if identification is made to an immigration file and the RTID System has a CBSA/IRCC Office Number on file;

- **Immigration Client Identifier (previously *Field Operational Support System* number)** – An Immigration Client Identifier is returned if identification is made to an immigration file and the RTID System has Immigration Client Identifier on file.

2.8955: VSR   Verification Search Result

This tag is used in the verification search results (TOT SRV) to indicate the verification search results findings. The verification search result codes are listed in the following table:

Table 4-11: 2.8955 – Verification Search Result Codes		
Code	**English Description**	**French Description**
I	MATCH	CORRESPONDANCE
N	NON MATCH	NON CORRESPONDANCE
U	UNABLE TO AUTO CERTIFY	AUTO-CERTIFICATION IMPOSSIBLE
X	FILE NO. NOT FOUND	NO. FICHIER. INTROUVABLE

Notes:

- A value of "**I**" means there was a verification identification made;

- A value of "**N**" means there was no verification identification made;

- A value of "**U**" means that the system was unable to auto-certify the fingerprints submitted;

- A value of "**X**" means that the system was unable to locate the Immigration Subject File number as supplied in the VER transaction.

2.8964: IID   Immigration File Number

This tag contains the Immigration Series 2 subject file number assigned by the RTID System. The subject file number is a 12-digit number that starts with "5".

2.8966: EAD   Effective Amendment Date

This tag indicates the date (in CCYYMMDD format) on which the processing of the amendment was successfully completed by the RTID System.

2.8967: AMR   Amendment Reason

This tag is used to describe the type of amendment in an IMA.

Table 4-32: 2.8967 – Amendment Reason Codes		
Code	**English Description**	**French Description**
01	BIOGRAPHICAL DATA	DONNÉES BIOGRAPHIQUES
02	IMMIGRATION RETENTION END DATE	DATE D'EXPIRATION DU FICHIER D'IMMIGRATION

2.8971: RDA   Immigration Retention End Date

The Immigration Retention End Date is the date that the Immigration file expires. The immigration file will be automatically purged from the RTID System on this date. The date is in the standard CCYYMMDD format.

In an IMM transaction, RDA represents the *requested* retention date. When present in an SRE the RDA tag contains the *assigned* retention date. For most situations, the assigned retention date will be identical to the requested retention date, unless the incoming IMM certifies to an existing Immigration file whose retention end date is greater than the *requested* date in the IMM submission. In this case, the greater date is kept and this *assigned retention date* value is returned in the RDA tag in the SRE.

The date that the immigration file expires can be modified through an amendment (IMA) transaction.

When included in an IMM or IMA transaction, this tag's value must be between the Date of Submission (tag 1.005) and 100 years following it.

Notes:

- In the special case of an IMM submission certifying to an Immigration Series 1 file, no validation or adjustment of *requested* vs. *assigned* retention dates is performed. The Immigration file created by the IMM submission will have the retention date contained in the IMM's RDA tag, and the Legacy Refugee file's retention date will be unchanged by the creation of the Immigration file.

- The retention end date of an Immigration Series 1 file is determined by the RTID system based on IRCC/CBSA policy and cannot be changed with an IMA transaction.

2.8972: EPD   Effective Purge Date

This tag returns to the external agency the date that the purge request was processed in response to a submitted purge (IMP) transaction. The date is in standard CCYYMMDD format.

2.8973: AFN   Subject File Identifier

This tag contains the subject file number assigned by the RCMP to the subject and must correspond to the file type code entered.

The Subject File Identifier sub-tags are:

- File Type Code, a code value as listed in the following table; and

- Subject File Number (it must correspond to the file type code entered).

Table 4-13: 2.8973 – File Type Codes		
Code	**English Description**	**French Description**
01	*DEPRECATED VALUE*	
02	IMMIGRATION SERIES 1	IMMIGRATION SÉRIE 1
03	*DEPRECATED VALUE*	
04	IMMIGRATION SERIES 2	IMMIGRATION SÉRIE 2

- When File Type Code is set to 02 (Immigration Series 1) the subject file number must be a 12-digit number that starts with "33" in order to be a valid file Subject File Number.

- When File Type Code is set to 04 (Immigration Series 2) the subject file number must be a 12-digit number that starts with "5" in order to be a valid Subject File Number.

- The VER transaction can only specify File Type Code 04 (Immigration Series 2).

- The IMP transaction can specify either File Type Code 02 (Immigration Series 1) or 04 (Immigration Series 2)

2.8981: RCC   Country Requesting Search

This tag contains a numeric code which indicates from which country the search transaction originates based on ISO-3166-1 numeric codes. The code table below is to be employed for this tag.

Table 4-14: 2.8981 – Country Requesting Search Codes		
Code	**English Description**	**French Description**
840	UNITED STATES	ÉTATS-UNIS
554	NEW ZEALAND	NOUVELLE-ZÉLANDE
036	AUSTRALIA	AUSTRALIE
826	UNITED KINGDOM	ROYAUME-UNI

4.3   Type-14 Data Definition (Fingerprint image record)

The Type-14 tagged-field logical record is used to exchange variable-resolution tenprint fingerprint image data together with fixed and user-defined textual information fields pertinent to the digitized image. Textual information regarding the scanning resolution, the image size and other parameters or comments required to process the image are recorded as tagged fields within the record.

To safeguard against image compression problems encountered for ID Flats when using older versions of WSQ, the Type-14 record must be 1000 bytes long or greater as per the Logical Record Length (LEN, tag 14.001).

A tenprint set may be represented as:

- Identification Flats (ID Flats), consisting of plain finger images only, are captured as three (3) Type-14 records,

- Rolled and Plain Images captured as thirteen (13) Type-14 records, or

- Rolled and Plain images captured as fourteen (14) Type-14 records.

Finger segment coordinates are mandatory when a tenprint set is encoded as ID Flats;
Finger segment coordinates are optional for a set of rolled and plains.

The IMM TOT will contain a set of ID Flats consisting of up to 3 Type-14 records in the transaction:

- one plain impression of four fingers captured simultaneously from the right hand;

- one plain impression of four fingers captured simultaneously from the left hand;

- one plain impression of both left and right thumbs captured simultaneously.

The ATS submission type may contain a set of ID Flats, or alternately, may contain a set of rolled and plain fingerprint images. A set of rolled and plain images shall be configured in one of two styles, referred to as a 13-print or 14-print set.

A 13-print set of images contains:

- ten rolled finger impressions captured individually;

- one plain impression of four fingers captured simultaneously from the right hand;

- one plain impression of four fingers captured simultaneously from the left hand;

- one plain impression of both left and right thumbs captured simultaneously.

A 14-print set of images contains:

- ten rolled finger impressions captured individually;

- one plain impression of four fingers captured simultaneously from the right hand;

- one plain impression of four fingers captured simultaneously from the left hand;

- one plain impression of the right thumb captured individually;

- one plain impression of the left thumb captured individually.

The supported tenprint definitions are based on the *ANSI/NIST standard* document as well as Appendix N of the *FBI EBTS* specifications. For permissible finger codes, refer to Table A-4: Finger and Palm Codes. For allowable box sizes, refer to Table A-5a: Allowable Box Sizes for Finger/Palm Images for IMM and VER in Appendix A.

The ANSI/NIST standard describes some of the tags in the Type-14 record. Only tags defined in addition to, or differently from the ANSI/NIST standard are described below.

14.011: CGA   Compression Algorithm

For ICD 2.1.1, Type 14 records must use WSQ compression only. ANSI/NIST recommends using Version 3.1 of the WSQ algorithm.

All new devices certified by the RCMP must encode this tag as value "WSQ20". Existing devices encoding the tag as value "WSQ" can continue to operate until such time at the code is deprecated by the RCMP.

Note that the RTID System currently only accepts images captured at 500 ppi (or down-sampled from a higher resolution to 500 ppi) for tenprint searches and enrolments.

14.013: FGP   Finger number

This field identifies what type of image the type-14 record contains. Refer to Table A-6: Finger and Palm Codes in Appendix A for a list of finger and image codes.

For Identification Flats, valid values are 13, 14 and 15.

For 14-Print rolled and plains, valid values are 01 – 10 for the rolled images and 11 – 14 for the plain images.

For 13-Print rolls and plains, valid values are 01 – 10 for the rolled images and 13 – 15 for the plain images.

14.021: SEG   Finger Segment Position(s)

This tag is used to capture offsets to the locations of image segments containing the individual fingers within multi-finger plain impression. In other words, a virtual box around each individual finger contained within the multi-finger plain impression. The offsets are relative to the origin, (0, 0), which is in the upper left corner of the image. The horizontal offsets (X) are the pixel counts to the right, and the vertical offsets (Y) are the pixel counts down. A finger segment is defined by the finger number, the X coordinates (left, right) and the Y coordinates (top, bottom), of its bounding box.

This optional field becomes mandatory when the image is an Identification Flat Image (i.e. 14.013 = 13, 14, or 15).

Transactions where finger segment information is provided for fingers listed as missing in Missing Finger or Image Reason (MFR tag 2.8084) will fail validation.

Transactions where finger segment information is missing for one or more fingers not listed as missing in Missing Finger or Image Reason (MFR tag 2.8084) will fail validation.

Finger segment positions must include valid combinations of fingers as per the Finger Number Code indicated (FGP tag 14.013). The following are valid combinations

- If 14.013 is 11, 14.021 will contain 01 only;

- If 14.013 is 12, 14.021 will contain 06 only;

- If 14.013 is 13, 14.021 may contain all or a subset of fingers 02, 03, 04, and 05;

- If 14.013 is 14, 14.021 may contain all or a subset of fingers 07, 08, 09, **and 10;**

- If 14.013 is 15, 14.021 may contain all or a subset of fingers 01 and 06.

14.022: IQM   Image Quality Metric

This tag shall contain the NIST Fingerprint Image Quality (NFIQ) scores for all fingers except those identified as missing as per the Type-2 tag 2.8084, "Missing Finger or Image Reason".

The first sub-field specifies the finger number, FGP 01 to 10. The second sub-field specifies the NIST image quality score associated with the finger. The score ranges from "1" for the best quality image, to "5" for the worst quality image. A "254" indicates that no score was computed while "255" indicates a failed attempt to calculate the image quality metric. It is expected that the vast majority of the transactions submitted will have a score between 1 and 5, and that codes 254 and 255 will only apply in exceptional circumstances.

14.200: IMTC   Image Type Contained

This tag is used to capture the type of image contained in the type-14 record.

For IMM and VER submissions, this field must always be set to 2 (Identification Flats). For ATS submissions, this field may be set to 1 (Rolled and Plain 14-Print), 2 (Identification Flats, captured as 4-4-2), or 4 (Rolled and Plain 13-Print). Any other value will return an error.

Table 4-15: Image Type Codes		
Value	**Image Type**	**Available for Transactions**
1	Rolled and Plain: 14-Print	ATS
2	Identification flats, 4-4-2	ATS, IMM, VER
3	*DEPRECATED VALUE*	
4	Rolled and Plain: 13-Print	ATS

5.   Logical Record Formats

The following section presents all TOTs that are supported by ICD 2.1.1 for Immigration Biometrics.

5.1   Type-1 Logical Record: Header Information

Table 5-1: RCMP NPS Type-1 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	1.001	Logical Record Length	N	2	3	1	1		
VER	M	1.002	ANSI/NIST Version Number	N	4	4	1	1	New devices must set this tag to 0502.	
CNT	M	1.003	File Content	N			2	50	**First occurrence:** • Information Item 1: Set to number "1"; • Information Item 2: The total number of records in this file excluding the Type-1 record. **Subsequent occurrences:** • Information Item 1: The type of record; • Information Item 2: The unique IDC number assigned to the record.	
	M		• Information Item 1	N	1	2	1	1		
	M		• Information Item 2	N	1	5	1	1		
TOT	M	1.004	Type of Transaction	A	3	5	1	1	Refer to Section 3: Types of Transactions.	
DAT	M	1.005	Date of Submission	D	8	8	1	1		
PRY	M	1.006	Priority	N	1	1	1	1		

Table 5-1: RCMP NPS Type-1 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
DAI	M	1.007	Destination Agency Identifier	AN	7	7	1	1	In transactions TO the RTID System, this field contains the ORI of the RTID System. In the responses FROM the RTID System, this field contains the ORI from the Submitting Agency..	
OAI	M	1.008	Originating Agency Identifier	AN	7	7	1	1	In transactions TO the RTID System, this field contains the ORI of the Contributing Agency. In response transactions FROM the RTID System, this field contains the ORI of the RTID System.	
TCN	M	1.009	Transaction Control Number	AN	20	20	1	1		
TCR	O	1.010	Transaction Control Reference Number	AN	20	20	0	1		
NSR	M	1.011	Native Scanning Resolution	NS	5	5	1	1	This must be 19.69 for 500 ppi prints. For transactions that do not contain fingerprint images then this tag is not applicable and should be set to "00.00"	Period
NTR	M	1.012	Nominal Transmitting Resolution	NS	5	5	1	1	This must be 19.69 for 500 ppi prints. For transactions that do not contain fingerprint images then this tag is not applicable and should be set to "00.00"	Period
GMT	O	1.014	Greenwich Mean Time	AN	15	15	0	1	This is populated for all transactions outbound from RTID, except SRV and ERRV.	

5.2   Type-2 Logical Record: Immigration Enrolment Transaction (IMM)

Table 5-2: IMM Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCN	M	2.800	Document Control Number	N	20	20	1	1		
NAME	M	2.806	Primary Name				1	1		
	M		• Surname	AS	1	50	1	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 1	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	C		• Given Name 2	AS	1	20	0	1	This tag can only be populated if Given Name 1 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 3	AS	1	20	0	1	This tag can only be populated if Given Name 2 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 4	AS	1	20	0	1	This tag can only be populated if Given Name 3 is populated.	Space, Hyphen, Apostrophe, Period
SEX	M	2.807	Sex	A	1	1	1	1		
LGF	M	2.819	Language Flag	A	1	1	1	1		
FQO	O	2.893	Fingerprint Quality Override				0	14		
	M		• Finger Number	N	2	2	1	1	Code Table: A1 (Finger/Palm) (01-10 and 13-15).	
	M		• Reason Code	N	2	2	1	1	Code Table: Fingerprint Quality Override.	
	C		• Description	ANS	1	50	0	1	This tag must only be included when Reason Code "99" is selected.	Any RCMP special character
RET	M	2.8005	Retention Code	A	1	1	1	1	Value must be set to "Y".	

Table 5-2: IMM Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
DOB	M	2.8022	Date of Birth	D	8	8	1	1	Subject's age cannot be less than 12 years based on the DOB and Date Fingerprinted. It is the contributor's responsibility to verify the age of the individual and provide a complete and valid date of birth (CCYYMMDD).	
DPR	M	2.8038	Date Fingerprinted	D	8	8	1	1	Date fingerprinted is determined according to the local date/time where the fingerprints are captured.	
IMA	M	2.8067	Image Capture Equipment				1	1		
	M		• Originating Fingerprint Reading System Make	ANS	1	25	1	1		Any RCMP special character
	M		• Originating Fingerprint Reading System Model	ANS	1	25	1	1		Any RCMP special character
	M		• Originating Fingerprint Reading System Serial Number	ANS	1	50	1	1		Any RCMP special character
MFR	C	2.8084	Missing Finger or Image Reason				0	13	This tag must only be included when there are less than 3 type-14 images or less than 10-segmented fingers.	
	M		• Finger or Image Code	N	2	2	1	1		
	M		• Missing Reason Code	A	2	2	1	1		
	O		• Missing Date	D	8	8	0	1	Partial dates not allowed.	
CNON	O	2.8908	Contributor Case File Number	ANS	1	32	0	1	When supplied, the file number will be echoed back in SRE tag Contributor Supplied Reference Information (CREF tag 2.8952).	Any RCMP special character
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Must be set to 211.	
STV	M	2.8911	System Table Version Number	N	3	3	1	1	Must be set to 001.	

Table 5-2: IMM Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
NFT	M	2.8931	Name of Person Responsible for Transaction	ANS	1	50	1	1		Any RCMP special character
NOTF	M	2.8938	Name of Official taking fingerprints	ANS	1	50	1	1	Name or unique identifier of an official operating the EFCD.	Any RCMP special character
FPCL	M	2.8939	Fingerprints Capture Location	ANS	1	200	1	1		Any RCMP special character plus Carriage Return and Line Feed
RDA	M	2.8971	Immigration Retention End Date	D	8	8	1	1	Requested retention end date. Must be between 0 and 100 years from submission date (based on tag 1.005).	

5.3   Type-2 Logical Record: Anonymous Tenprint Search transaction (ATS)

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
Table 5-3: ATS Transaction: Type-2 Logical Record										
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCN	M	2.800	Document Control Number	N	20	20	1	1		
LGF	M	2.819	Language Flag	A	1	1	1			
RET	M	2.8005	Retention Code	A	1	1	1	1	Value will be set to "N".	
MFR	C	2.8084	Missing Finger or Image Reason				0	14	This tag must only be included when there are less than 13 or 14 type-14 records or less than 3 type-14 records or missing fingers from any type-14 record. One reason code is to be provided for each missing finger	
	M		• Finger or Image Code	N	2	2	1	1		
	M		• Missing Reason Code	A	2	2	1	1		
	O		• Missing Date	D	8	8	0	1	Partial dates not allowed.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Must be set to 211.	
STV	M	2.8911	System Table Version Number	N	3	3	1	1	Must be set to 001.	
RCC	M	2.8981	Country Requesting Search	N	3	3	1	1		

5.4   Type-2 Logical Record: Verification transaction (VER)

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
Table 5-4: VER Transaction: Type-2 Logical Record										
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
IMA	M	2.8067	Image Capture Equipment				1	1		
	M		• Originating Fingerprint Reading System Make	ANS	1	25	1	1		Any RCMP special character
	M		• Originating Fingerprint Reading System Model	ANS	1	25	1	1		Any RCMP special character
	M		• Originating Fingerprint Reading System Serial Number	ANS	1	50	1	1		Any RCMP special character
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Must be set to 211.	
NOTF	M	2.8938	Name of Official Taking Fingerprints	ANS	1	50	1	1	Name or unique identifier of an official operating the EFCD.	Any RCMP special character
FPCL	M	2.8939	Fingerprints Capture Location	ANS	1	20	1	1		Any RCMP special character
AFN	M	2.8973	Subject File Identifier				1	1		
	M		• File Type Code	N	2	2	1	1	Must be set to 02	
	M		• Subject File Number	N	1	12	1	1	The subject file number must align with the File Type Code.	

5.5　Type-2 Logical Record: Immigration File Amend Transaction (IMA)

Table 5-5: IMA Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
NAME	C	2.806	Primary Name				0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date).	
	M		• Surname	AS	1	50	1	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 1	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	C		• Given Name 2	AS	1	20	0	1	This tag can only be populated if Given Name 1 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 3	AS	1	20	0	1	This tag can only be populated if Given Name 2 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 4	AS	1	20	0	1	This tag can only be populated if Given Name 3 is populated.	Space, Hyphen, Apostrophe, Period

Table 5-5: IMA Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
SEX	C	2.807	Sex	A	1	1	0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date).	
LGF	M	2.819	Language Flag	A	1	1	1	1		
OTN	O	2.824	Other Names/Aliases				0	40	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date).	
	M		• Surname	AS	1	50	1	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 1	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	C		• Given Name 2	AS	1	20	0	1	This tag can only be populated if Given Name 1 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 3	AS	1	20	0	1	This tag can only be populated if Given Name 2 is populated.	Space, Hyphen, Apostrophe, Period
	C		• Given Name 4	AS	1	20	0	1	This tag can only be populated if Given Name 3 is populated.	Space, Hyphen, Apostrophe, Period

Table 5-5: IMA Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
DCR	C	2.851	DCN Reference Number	N	20	20	0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date).	
FOSS	O	2.888	Immigration Client Identifier	ANS	1	16	0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason is equal to "02" (Immigration Retention End Date).	Any RCMP special character
DOB	C	2.8022	Date of Birth	D	8	8	0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data). Note it must not be included when AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date).	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Must be set to 211	
STV	M	2.8911	System Table Version Number	N	3	3	1	1	Must be set to 001	
NFT	M	2.8931	Name of Person Responsible for Transaction	ANS	1	50	1	1		Any RCMP special character
IID	M	2.8964	Immigration File Number	N	12	12	1	1	The IID must already exist in the RTID system.	

Table 5-5: IMA Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
AMR	M	2.8967	Amendment Reason	N	2	2	1	1		
RDA	C	2.8971	Immigration Retention End Date	D	8	8	0	1	This tag must only be included when: • AMR 2.8967 [Amendment Reason] is equal to "02" (Immigration Retention End Date). Note this tag must not be included when AMR 2.8967 [Amendment Reason] is equal to "01" (Biographic Data).	

5.6   Type-2 Logical RECORD: Immigration File Purge transaction (IMP)

Table 5-5: IMP Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
LGF	M	2.819	Language Flag	A	1	1	1	1		
DCR	C	2.851	DCN Reference Number	N	20	20	0	1	This field must be provided for a Submission Level purge. Note: The field must not be provided for a File Level purge.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Must be set to 211	
STV	M	2.8911	System Table Version Number	N	3	3	1	1	Must be set to 001	
NFT	M	2.8931	Name of Person Responsible for Transaction	ANS	1	50	1	1		Any RCMP special character
AFN	M	2.8973	Subject File Identifier				1	1		
	M		• File Type Code	N	2	2	1	1	Must be set to either 02 or 04	
	M		• Subject File Number	N	1	12	1	1	The subject file number must align with the File Type Code.	

5.7   Type-2 Logical Record: tenprint Search Results (SRE)

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
Table 5-7: SRE Transaction: Type-2 Logical Record										
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCN	M	2.800	Document Control Number	N	20	20	1	1		
NMG	O	2.827	Narrative Message	ANS	1	1000	0	1	Not populated for ICD 2.1.1 transactions. .	Any RCMP special character plus Carriage Return, Line Feed, and at sign (@)
RRES	M	2.875	RCMP-NPS Results	A	1	1	1	1	Valid value is "Y".	
ESD	O	2.8044	Effective Search Date	D	8	8	0	1		
ACN	O	2.8071	Action to be Taken	ANS	1	500	0	1	Not populated for ICD 2.1.1 transactions.	Any RCMP special character plus Carriage Return, Line Feed, and at sign (@)
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		
CREF	O	2.8952	Contributor Supplied Reference Information				0	1	The CREF sub-tags will only be populated when received as tag values in the incoming submission.	
	O		• Primary Surname	AS	1	50	0	1		Space, Period, Hyphen, Apostrophe

Table 5-7: SRE Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	O		• Given Name 1	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 2	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 3	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 4	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Date of Birth	D	8	8	0	1		
	O		• Sex	A	1	1	0	1		
	O		• CBSA/IRCC Office Number	ANS	1	16	0	1	Not populated in ICD 2.1.1 SRE transactions.	Any RCMP special character
	O		• Immigration Client Identifier	ANS	1	16	0	1	Not populated in ICD 2.1.1 SRE transactions.	Any RCMP special character
	O		• Individual Reference Number	ANS	1	32	0	1	Not populated in ICD 2.1.1 SRE transactions.	Any RCMP special character
	O		• Contributor Case File Number	ANS	1	32	0	1		Any RCMP special character
IDI	O	2.8953	Search Result Information				0	10		
	M		• File Type Searched Code	N	2	2	1	1		
	M		• Search Result Code	A	1	1	1	1	.	

Table 5-7: SRE Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	O		• Subject File Number	AN	1	12	0	1	A file number assigned by the RTID System to identify an individual set of fingerprints. A Criminal File number (i.e. FPS) will always be returned in short format.	
	O		• Surname	AS	1	50	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 1	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 2	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 3	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Given Name 4	AS	1	20	0	1		Space, Period, Hyphen, Apostrophe
	O		• Date of Birth	N	8	8	0	1	When populated, may be a complete date "CCYYMMDD" or a partial date "CCYYMM00" or "CCYY0000".	
	O		• Sex	A	1	1	0	1		
	O		• CBSA/IRCC Office Number	ANS	1	16	0	1		Any RCMP special character
	O		• Immigration Client Identifier	ANS	1	16	0	1		Any RCMP special character

Table 5-7: SRE Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
RDA	O	2.8971	Immigration Retention End Date	D	8	8	0	1	Immigration Retention End Date assigned is returned in response to an IMM TOT.	

5.8   Type-2 Logical Record: Verification Search Results (SRV)

Table 5-6: SRV Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		
VSR	M	2.8955	Verification Search Result	A	1	1	1	1		
AFN	M	2.8973	Subject File Identifier				1	1		
	M		• File Type Code	N	2	2	1	1		
	M		• Subject File Number	N	1	12	1	1		

5.9   Type-2 Logical Record: Immigration amend Results (IMAR)

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
Table 5-7: IMAR Transaction: Type-2 Logical Record										
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCR	O	2.851	DCN Reference Number	N	20	20	0	1	Value will be returned if present in the originating IMA transaction.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		
IID	M	2.8964	Immigration File Number	N	12	12	1	1		
EAD	M	2.8966	Effective Amendment Date	D	8	8	1	1		
AMR	M	2.8967	Amendment Reason	N	2	2	1	1		
RDA	O	2.8971	Immigration Retention End Date	D	8	8	0	1	Value will be returned if present in the originating IMA transaction.	

5.10 Type-2 Logical Record: Immigration purge Results (IMPR)

Table 5-8: IMPR Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCR	O	2.851	DCN Reference Number	N	20	20	0	1	Value is returned if present in the originating IMP transaction.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		
EPD	M	2.8972	Effective Purge Date	D	8	8	1	1		
AFN	M	2.8973	Subject File Identifier				1	1		
	M		• File Type Code	N	2	2	1	1		
	M		• Subject File Number	N	1	12	1	1		

5.11 Type-2 Logical Record: error Tenprint transaction (ERRT)

Table 5-9: ERRT Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCN	O	2.800	Document Control Number	N	20	20	0	1	DCN (Tag 2.800) will be returned only if present in the original transaction.	
NMG	O	2.827	Narrative Message	ANS	1	1000	0	1		Any RCMP special character plus Carriage Return, Line Feed, and At sign (@)
RRES	O	2.875	RCMP-NPS Results	A	1	1	0	1	Valid value is "Y".	
EMSG	M	2.8060	Error Message				1	50		
	M		• Error Code	N	1	5	1	1		
	M		• Error Message	ANS	1	300	1	1	Special character may appear as the first or last character in this field.	Any RCMP special character plus At sign (@)
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		

5.12 Type-2 Logical Record: error Verification transaction (ERRV)

Table 5-10: ERRV Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
EMSG	M	2.8060	Error Message				1	50		
	M		• Error Code	N	1	5	1	1		
	M		• Error Message	ANS	1	300	1	1	A special character may appear as the first or last character in this field.	Any RCMP special character plus At sign (@)
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		
AFN	M	2.8973	Subject File Identifier				1	1		
	M		• File Type Code	N	2	2	1	1		
	M		• Subject File Number	N	1	12	1	1		

5.13 Type-2 Logical Record: Acknowledgment Tenprint (ACKT)

Table 5-11: ACKT Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCN	O	2.800	Document Control Number	N	20	20	0	1	DCN (Tag 2.800) will be returned only if present in the original transaction.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1		

5.14 Type-2 Logical Record: Unsolicited Criminal Notification (UCN)

Table 5-12: UCN Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	2.001	Logical Record Length	N	2	7	1	1		
IDC	M	2.002	Image Designation Character	N	1	5	1	1		
DCR	M	2.851	DCN Reference Number	N	20	20	1	1	Contains the DCN from the criminal submission that identified to the Immigration file.	
SUBTP	M	2.855	Submission Type	ANS	3	7	1	1	The criminal submission type the identified to the immigration file either "CAR-Y" (enrolment) or "CAR-N" (inquiry)	Hyphen
CAI	M	2.856	Contributing Agency Information				1	1	This tag describes the agency that submitted the criminal transaction that resulted in the creation of the UCN	
	M		• Contributing Agency Identifier	AN	7	7	1	1	The agency identifier (i.e. ORI)	
	M		• Contributing Agency Name EN	ANS	1	50	1	1	The common English name of the agency	Any RCMP special character
	M		• Contributing Agency Name FR	ANS	1	50	1	1	The common French name of the agency	Any RCMP special character
DPR	M	2.8038	Date Fingerprinted	D	8	8	1	1	The date fingerprints were taken, as reported on the criminal submission	
ESD	M	2.8044	Effective Search Date	D	8	8	1	1	The date on which the fingerprint-based search was completed.	
NVN	M	2.8910	External ICD Version Number	N	3	3	1	1	Shall be set to 211	

Table 5-12: UCN Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
CREF	M	2.8952	Contributor Supplied Reference Information				1	1	This tag returns the contributor-supplied subject information and reference numbers of the criminal transaction.	
	M		• Surname	AS	1	50	1	1	The surname of the individual on the criminal submission.	Space, Hyphen, Apostrophe, Period
	O		• Given Name 1	AS	1	20	0	1	The given name(s) of the individual if was supplied on the criminal submission.	Space, Hyphen, Apostrophe, Period
	O		• Given Name 2	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 3	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 4	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	M		• Date of Birth	N	8	8	1	1	The DOB of the individual on the criminal submission. May be a complete date "CCYYMMDD" or zero-filled "00000000" when DOB is unknown by the contributor of a CAR-N criminal inquiry	
	M		• Sex	A	1	1	1	1		
	O		• CBSA/IRCC Office Number	ANS	1	16	0	1	The CBSA or IRCC Office Number if it was supplied on the criminal submission	

Table 5-12: UCN Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	O		• Immigration Client Identifier	ANS	1	16	0	1	The Immigration Client ID if it was supplied on the criminal submission	
	O		• Individual Reference Number	ANS	1	32	0	1	An identifier if it was supplied on the criminal submission.	
	O		• Contributor Case File Number	ANS	1	32	0	1	An identifier if it was supplied on the criminal submission.	
IDI	M	2.8953	Search Result Information				2	10	A variable list of search results by RTID file type. For UCN, one occurrence shall be present for File Type 01 (Criminal) and one or two other occurrences shall be present for File Type 04 (Immigration Series 2) or 02 (Immigration Series 1) or both.	
	M		• File Type Searched Code	N	2	2	1	1		
	M		• Search Result Code	A	1	1	1	1	Shall be set to one of: I A fingerprint identification is made by RTID N No fingerprint identification is made by RTID All remaining sub-tags within tag 2.8953 Search Result Information shall only be provided when the Search Result Code is equal to "I" (Ident).	

Table 5-12: UCN Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	O		• Subject File Number	AN	1	12	0	1	When Search Result Code is equal to "I" (Ident) the Subject File Number shall contain the identifier assigned to this subject for the specified File Type Searched Code. Note that a criminal File Number with an alpha suffix shall be encoded as exactly 7 characters long; example: 001234G. A File Number not having an alpha suffix shall be encoded as exactly 6 digits long; example: 054321.	
	O		• Surname	AS	1	50	0	1	The surname of the subject on file at the RCMP having the specified file number	Space, Hyphen, Apostrophe, Period
	O		• Given Name 1	AS	1	20	0	1	A given name of the subject on file at the RCMP having the specified file number; up to 4 given names populated	Space, Hyphen, Apostrophe, Period
	O		• Given Name 2	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 3	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	O		• Given Name 4	AS	1	20	0	1		Space, Hyphen, Apostrophe, Period
	O		• Date of Birth	N	8	8	0	1	May be a complete date "CCYYMMDD" or a partial date "CCYY0000" or "CCYYMM00".	

Table 5-12: UCN Transaction: Type-2 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	O		• Sex	A	1	1	0	1		
	O		• CBSA/IRCC Office Number	ANS	1	16	0	1	Returned if one is on file	Any RCMP special character
	O		• Immigration Client Identifier	ANS	1	16	0	1	Returned if one is on file	Any RCMP special character

5.15 Type-14 Logical Record: Fingerprint Image Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
LEN	M	14.001	Logical Record Length	N	4	8	1	1	Must be greater than 1000 bytes	
IDC	M	14.002	Image Designation Character	N	1	5	1	1		
IMP	M	14.003	Impression Type	N	1	2	1	1	A value selected from Appendix A, Table A-3 (Impression Type Codes). Should be set to 0 or 2 for IMM; Should always be set to 0 for VER. For ATS transactions containing ID Flats, this must be set to 0 or 2. For ATS transactions contained Rolled and Plain images, this must be set to 1 or 3.	
SRC	M	14.004	Source Agency Identifier	AN	7	7	1	1	ORI of the agency that captured the fingerprint images.	
TCD	M	14.005	Capture Date	D	8	8	1	1	The date the fingerprint image was captured by the EFCD.	
HLL	M	14.006	Horizontal Line Length	N	3	5	1	1		
VLL	M	14.007	Vertical Line Length	N	3	5	1	1		
SLC	M	14.008	Scale Units	N	1	1	1	1	This tag is used to describe the image sampling frequency (pixel density). Valid Values are 1 or 2. • "1" indicates pixels per inch • "2" indicates per centimeter	
HPS	M	14.009	Horizontal Pixel Scale	N	1	5	1	1	Contributors must round to the nearest whole number.	

Table 5-13: Type-14 Logical Record

Table 5-13: Type-14 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
VPS	M	14.010	Vertical Pixel Scale	N	1	5	1	1	Contributors must round to the nearest whole number.	
CGA	M	14.011	Compression Algorithm	AN	3	7	1	1	This tag shall be used to specify the type of compression algorithm used. Must be set to "WSQ20". Existing devices can continue to encode a value of WSQ.	
BPX	M	14.012	Bits Per Pixel	N	1	3	1	1	The value shall contain the number of bits used to represent one pixel. A value of 8 is required for greyscale images.	
FGP	M	14.013	Finger Number	N	2	2	1	1	Acceptable values are 01 to 15.	
SEG	C	14.021	Finger Segment Position				0	4	This tag must be included when the fingerprint images are ID Flats (14.200 = 2 (ID Flats))	
	M		• Finger Number	N	2	2	1	1	Valid values are 01 to 10.	
	M		• Left	N	1	4	1	1		
	M		• Right	N	1	4	1	1		
	M		• Top	N	1	4	1	1		
	M		• Bottom	N	1	4	1	1		
IQM	O, C	14.022	Image Quality Metric				0	4	This optional tag becomes mandatory when tag 1.004 TOT is equal to "IMM" or "VER"; Note - Optional when tag 1.004 TOT is equal to "ATS".	
	M		• Finger Number	N	2	2	1	1	Valid values are 01 to 10. Values 11 to 15 are ignored if provided.	

Table 5-13: Type-14 Logical Record

Identifier	Condition	Tag Number	Tag Name	Character Type	Field Size Per Occurrence		Occurrences		Notes	Special Characters Allowed
					Min	Max	Min	Max		
	M		• Image Quality Score	N	1	3	1	1	Valid values are 1 to 5, 254 and 255.	
IMTC	M	14.200	Image Type Contained	N	1	1	1	1	Used to specify the type of image contained in the record. For IMM and VER transactions, this field must always be set to 2 (4-4-2 ID flats). Valid values for ATS transactions are: 1 (Rolled 14-Print), 2 (4-4-2 Identification flats), or, 4 (Rolled 13-Print).	
DAT	M	14.999	Image Data	B	4	*	1	1		

Appendix A – Tables

A.1 Finger and Palm Codes

Table A-1: Finger and Palm Codes		
Code	**English Description**	**French Description**
00	UNKNOWN FINGER	DOIGT INCONNU
01	RIGHT THUMB	POUCE DROIT
02	RIGHT INDEX	INDEX DROIT
03	RIGHT MIDDLE	MAJEUR DROIT
04	RIGHT RING	ANNULAIRE DROIT
05	RIGHT LITTLE	AURICULAIRE DROIT
06	LEFT THUMB	POUCE GAUCHE
07	LEFT INDEX	INDEX GAUCHE
08	LEFT MIDDLE	MAJEUR GAUCHE
09	LEFT RING	ANNULAIRE GAUCHE
10	LEFT LITTLE	AURICULAIRE GAUCHE
11	PLAIN RIGHT THUMB	POUCE DROIT NON-ROULE
12	PLAIN LEFT THUMB	POUCE GAUCHE NON-ROULE
13	PLAIN RIGHT FOUR FINGERS	IMPRESSION SIMULTANEE DES QUATRE DOIGTS DROIT
14	PLAIN LEFT FOUR FINGERS	IMPRESSION SIMULTANEE DES QUATRE DOIGTS GAUCHE
15	PLAIN LEFT AND RIGHT THUMBS	POUCES GAUCHE ET DROIT NON ROULES
20	UNKNOWN PALM	PAUME INCONNUE
21	RIGHT FULL PALM	PAUME DROITE COMPLETE
22	RIGHT WRITERS PALM	PAUME DROIT – HYPOTHENAR
23	LEFT FULL PALM	PAUME GAUCHE COMPLETE
24	LEFT WRITERS PALM	PAUME GAUCHE – HYPOTHENAR
25	RIGHT LOWER PALM	PAUME DROITE – PARTIE INFÉRIEURE
26	RIGHT UPPER PALM	PAUME DROITE – PARTIE SUPÉRIEURE
27	LEFT LOWER PALM	PAUME GAUCHE – PARTIE INFÉRIEURE
28	LEFT UPPER PALM	PAUME GAUCHE – PARTIE SUPÉRIEURE
29	RIGHT PALM – OTHER	PAUME DROITE – AUTRE PARTIE
30	LEFT PALM – OTHER	PAUME GAUCHE – AUTRE PARTIE
Note: Finger palm codes in red and greyed out must not be used for ICD 2.1.1 transactions.		

A-2a: Allowable Box Sizes for Finger/Palm Images for IMM and VER

Table A-2a: Allowable Box Sizes for Finger/Palm Images for IMM and VER				
Finger/Palm print	**Impression Type**	**Finger Number**	**Width pixels (inches)**	**Length/Height pixels (inches)**
ROLLED FINGER IMPRESSIONS	1 OR 3	01 – 10	800 (1.6)	750 (1.5)
PLAIN FINGER IMPRESSIONS	0 OR 2	02–05, 07–10	500 (1.0)	1000 (2.0)
PLAIN THUMB IMPRESSION	0 OR 2	11 – 12	500 (1.0)	1000 (2.0)
4 FINGER PLAIN IMPRESSIONS	0 OR 2	13 – 14	1600 (3.2)	1000 (2.0)
4 FINGER PLAIN IMPRESSIONS (TYPE-14 RECORD)	0 OR 2	13 – 14	1600 (3.2)	1500 (3.0)
2 PLAIN THUMB IMPRESSIONS (TYPE-14 RECORD)	0 OR 2	15	1600 (3.2)	1500 (3.0)
FULL PALM IMPRESSION (TYPE-15 RECORD)	10 OR 11	21, 23	2750 (5.5)	4000 (8.0)
WRITER'S PALM IMPRESSION (TYPE-15 RECORD)	10 OR 11	22, 24	900 (1.8)	2500 (5.0)
UPPER AND LOWER PALM (TYPE-15 RECORD)	10 OR 11	25, 26, 27, 28	2750 (5.5)	2750 (5.5)

A-2b: Allowable Box Sizes for Finger Images for ATS

Table A-2b: Allowable Box Sizes for Finger Images for ATS				
Finger/Palm print	**Impression Type**	**Finger Number**	**Width pixels (inches)**	**Length/Height pixels (inches)**
ROLLED FINGER IMPRESSIONS	1 OR 3	01 – 10	800 (1.6)	1000 (2.0)
PLAIN THUMB IMPRESSION	0 OR 2	11 – 12	650 (1.3)	1050 (2.1)
2 PLAIN THUMB IMPRESSIONS	0 OR 2	15	1600 (3.2)	1500 (3.0)
4 FINGER PLAIN IMPRESSIONS	0 OR 2	13 – 14	1600 (3.2)	1500 (3.0)

Notes:

- The allowable box sizes for International Transactions (ATS) are different from Domestic sizes shown in Table A-2a and are documented separately in Table A-2b.

- Attributes for allowable box sizes for finger/palm codes showing in red and greyed out must not be used for ICD 2.1.1 transactions.

- For Tenprint submissions, all finger/palm impressions must be scanned at 500ppi, or, possibly in the case of ATS, down-sampled to 500ppi from a higher scanning resolution.

- Livescan box sizes must conform to the width and height specifications stated in the tables above.

- Cardscan box sizes shall default to the width and height stated in the tables above but should allow the user to adjust downward the box sizes to allow for the removal of adjacent fingerprints and/or lines.

A-3: Impression Type Codes

Table A-3: Impression Type Codes				
Code	**English Description**	**French Description**	**Finger**	**Palm**
0	LIVESCAN PLAIN	TRACE PLAQUÉE À SEC	Y	
1	LIVESCAN ROLLED	TRACE ROULÉE À SEC	Y	
2	NON-LIVESCAN PLAIN	TRACE PLAQUÉE ENCRÉE	Y	
3	NON-LIVESCAN ROLLED	TRACE ROULÉE ENCRÉE	Y	
4	LATENT IMPRESSION	EMPREINTE LATENTE	Y	
5	LATENT TRACING	TRAÇAGE – EMPREINTE LATENTE	Y	
6	LATENT PHOTO	PHOTO – EMPREINTE LATENTE	Y	
7	LATENT LIFT	DÉCALQUE – EMPREINTE LATENTE	Y	
10	LIVESCAN PALM	PAUME A SEC		Y
11	NON-LIVESCAN PALM	PAUME ENCRÉE		Y
12	LATENT PALM IMPRESSION	EMPREINTE PALMAIRE LATENTE		Y
13	LATENT PALM TRACING	TRAÇAGE – EMPREINTE PALMAIRE LATENTE		Y
14	LATENT PALM PHOTO	PHOTO – EMPREINTE PALMAIRE LATENTE		Y
15	LATENT PALM LIFT	DÉCALQUE – EMPREINTE PALMAIRE LATENTE		Y
Note: LIVESCAN PLAIN (0) LIVESCAN ROLLED (1) or LIVESCAN PALM (10) impression types must be used for Livescan submissions, and NON-LIVESCAN PLAIN (2) or NON-LIVESCAN ROLLED (3) or NON-LIVESCAN PALM (11) impression types must be used for Cardscan submissions.				
Note: Impression Type codes in red and greyed out are not supported for ICD 2.1.1 transactions.				

A-4: Canadian Province Codes

Table A-4: Province Codes				
Numeric Code	**English Description**	**French Description**	**ORI Alpha Code**	**Canada Post Alpha Code**
01	NEWFOUNDLAND AND LABRADOR	TERRE-NEUVE-ET-LABRADOR	NF	NL
02	PRINCE EDWARD ISLAND	ÎLE-DU-PRINCE-ÉDOUARD	PE	PE
03	NOVA SCOTIA	NOUVELLE-ÉCOSSE	NS	NS
04	NEW BRUNSWICK	NOUVEAU-BRUNSWICK	NK	NB
05	QUEBEC	QUÉBEC	PQ	QC
06	ONTARIO	ONTARIO	ON	ON
07	MANITOBA	MANITOBA	MB	MB
08	SASKATCHEWAN	SASKATCHEWAN	SN	SK
09	ALBERTA	ALBERTA	AB	AB
10	BRITISH COLUMBIA	COLOMBIE-BRITANNIQUE	BC	BC
11	NORTH WEST TERRITORIES	TERRITOIRES DU NORD-OUEST	NT	NT
12	YUKON	YUKON	YT	YT
13	NUNAVUT	NUNAVUT	NU	NU

Notes:

1. The "ORI Alpha Code" is used with RTID Agency Identifiers populated in Record Type-1 tags 1.007 DAI – Destination Agency Identifier, 1.008 OAI – Originating Agency Identifier, and 1.009 TCN – Transaction Control Number.

2. The "Numeric Code" are used when converting the RTID Agency Identifier from alphanumeric to numeric when embedding within the DCN (tag 2.800)

3. Whenever an address within Canada is printed on an output form or other product, RTID relies on the Canada Post coding convention for mailing purposes. Encoding differences can be observed in the above table specifically for Newfoundland and Labrador, New Brunswick, Quebec and Saskatchewan. The RTID system performs the necessary conversions in order to print the Canada Post mailing code for each province/territory.

A-5: Country Codes

RTID Country Codes are based on ISO-3166-1 Numeric Code standard. Only those codes relevant to ICD 2.1.1 are listed below.

Table A-5: Country Codes		
Code	**English Description**	**French Description**
036	AUSTRALIA	AUSTRALIE
554	NEW ZEALAND	NOUVELLE-ZELANDE
826	UNITED KINGDOM	ROYAUME-UNI
840	UNITED STATES OF AMERICA	ETATS-UNIS D'AMERIQUE

Appendix B – Summary Tag List for Transactions to RTID

Table B-1: Summary Tag List for Transactions to RTID						
Tag Number	**Tag ID**	**Type of Transaction (TOT)**				
		ATS	**IMM**	**IMA**	**IMP**	**VER**
2.001	LEN	M	M	M	M	M
2.002	IDC	M	M	M	M	M
2.800	DCN	M	M			
2.806	NAME		M	C		
2.807	SEX		M	C		
2.819	LGF	M	M	M	M	
2.824	OTN			O		
2.827	NMG					
2.851	DCR			C	O	
2.875	RRES					
2.887	*CIC*	*Deprecated tag*				
2.888	FOSS			O		
2.893	FQO		O			
2.8005	RET	M	M			
2.8022	DOB		M	C		
2.8038	DPR		M			
2.8044	ESD					
2.8060	EMSG					
2.8067	IMA		M			M
2.8071	ACN					
2.8084	MFR	C	C			
2.8908	CNON		O			
2.8910	NVN	M	M	M	M	M
2.8911	STV	M	M	M	M	
2.8931	NFT		M	M	M	
2.8938	NOTF		M			M
2.8939	FPCL		M			M
2.8952	CREF					
2.8953	IDI					
2.8955	VSR					
2.8964	IID			M		

Table B-1: Summary Tag List for Transactions to RTID

Tag Number	Tag ID	Type of Transaction (TOT)				
		ATS	IMM	IMA	IMP	VER
2.8966	EAD					
2.8967	AMR			M		
2.8971	RDA		M	C		
2.8972	EPD					
2.8973	AFN				M	M
2.8981	RCC	M				

Table B-2: Summary Tag List for Transactions From RTID

Tag Number	Tag ID	Type of Transaction (TOT)							
		ACKT	ERRT	SRE	IMAR	IMPR	ERRV	SRV	UCN
2.001	LEN	M	M	M	M	M	M	M	M
2.002	IDC	M	M	M	M	M	M	M	M
2.800	DCN	O	O	M					
2.806	NAME								
2.807	SEX								
2.819	LGF								
2.824	OTN								
2.827	NMG		O	O					
2.851	DCR				O	O			M
2.855	SUBTP								M
2.856	CAI								M
2.875	RRES		O	M					
2.887	*CIC*	*Deprecated tag*							
2.888	FOSS								
2.893	FQO								
2.8005	RET								
2.8022	DOB								
2.8038	DPR								M
2.8044	ESD			O					M
2.8060	EMSG		M				M		
2.8067	IMA								
2.8071	ACN			O					

Table B-2: Summary Tag List for Transactions From RTID									
Tag Number	Tag ID	Type of Transaction (TOT)							
		ACKT	ERRT	SRE	IMAR	IMPR	ERRV	SRV	UCN
2.8084	MFR								
2.8908	CNON								
2.8910	NVN	M	M	M	M	M	M	M	M
2.8911	STV								
2.8931	NFT								
2.8938	NOTF								
2.8939	FPCL								
2.8952	CREF			O					M
2.8953	IDI			O					M
2.8955	VSR							M	
2.8964	IID				M				
2.8966	EAD				M				
2.8967	AMR				M				
2.8971	RDA			O	O				
2.8972	EPD					M			
2.8973	AFN					M	M	M	
2.8981	RCC								

Appendix C – Data Dictionary of RCMP-Defined tags

Table C-1: Data Dictionary of RCMP-Defined Tags						
Tag Number	**Tag ID**	**Tag Name**	**Pick List**	**Character Type**	**Min Field Size**	**Max Field Size**
1.001	LEN	Logical Record Length		N	2	3
1.002	VER	ANSI/NIST Version Number		N	4	4
1.003	CNT	File Content				
		• Information Item 1		N	1	2
		• Information Item 2		N	1	5
1.004	TOT	Type of Transaction		A	3	5
1.005	DAT	Date of Submission		D	8	8
1.006	PRY	Priority		N	1	1
1.007	DAI	Destination Agency Identifier		AN	7	7
1.008	OAI	Originating Agency Identifier		AN	7	7
1.009	TCN	Transaction Control Number		AN	20	20
1.010	TCR	Transaction Control Reference Number		AN	20	20
1.011	NSR	Native Scanning Resolution		NS	5	5
1.012	NTR	Nominal Transmitting Resolution		NS	5	5
1.014	GMT	Greenwich Mean Time		AN	15	15
2.001	LEN	Logical Record Length		N	2	7
2.002	IDC	Image Designation Character		N	1	5
2.800	DCN	Document Control Number		N	20	20
2.806	NAME	Primary Name				
		• Surname		AS	1	50
		• Given Name 1		AS	1	20
		• Given Name 2		AS	1	20
		• Given Name 3		AS	1	20
		• Given Name 4		AS	1	20
2.807	SEX	Sex	Y	A	1	1
2.819	LGF	Language Flag	Y	A	1	1
2.824	OTN	Other Names/Aliases				
		• Surname		AS	1	50
		• Given Name 1		AS	1	20
		• Given Name 2		AS	1	20
		• Given Name 3		AS	1	20
		• Given Name 4		AS	1	20
2.827	NMG	Narrative Message		ANS	1	1000

Tag Number	Tag ID	Tag Name	Pick List	Character Type	Min Field Size	Max Field Size
Table C-1: Data Dictionary of RCMP-Defined Tags						
2.851	DCR	DCN Reference Number		N	20	20
2.855	SUBTP	Submission Type		ANS	3	7
2.856	CAI	Contributing Agency Information				
		• Contributing Agency Identifier		AN	7	7
		• Contributing Agency Name EN		ANS	1	50
		• Contributing Agency Name FR		ANS	1	50
2.875	RRES	RCMP-NPS Results	Y	A	1	1
2.887	*CIC*	*CBSA/IRCC Office Number*	*Deprecated tag*			
2.888	FOSS	Immigration Client Identifier		ANS	1	16
2.893	FQO	Fingerprint Quality Override				
		• Finger Number	Y	N	2	2
		• Reason Code	Y	N	2	2
		• Description		ANS	1	50
2.8005	RET	Retention Code		A	1	1
2.8022	DOB	Date of Birth		D	8	8
2.8038	DPR	Date Fingerprinted		D	8	8
2.8044	ESD	Effective Search Date		D	8	8
2.8060	EMSG	Error Message				
		• Error Code		N	1	5
		• Error Message		ANS	1	300
2.8067	IMA	Image Capture Equipment				
		• Originating Fingerprint Reading System Make		ANS	1	25
		• Originating Fingerprint Reading System Model		ANS	1	25
		• Originating Fingerprint Reading System Serial Number		ANS	1	50
2.8071	ACN	Action to be Taken		ANS	1	500
2.8084	MFR	Missing Finger or Image Reason				
		• Finger or Image Code	Y	N	2	2
		• Missing Reason Code	Y	A	2	2
		• Missing Date		D	8	8
2.8908	CNON	Contributor Case File Number		ANS	1	32
2.8910	NVN	External ICD Version Number		N	3	3
2.8911	STV	System Table Version Number		N	3	3

Tag Number	Tag ID	Tag Name	Pick List	Character Type	Min Field Size	Max Field Size
2.8931	NFT	Name of Person responsible for Transaction		ANS	1	50
2.8938	NOTF	Name of Official Taking Fingerprints		ANS	1	50
2.8939	FPCL	Fingerprints Capture Location		ANS	1	200
2.8952	CREF	Contributor Supplied Reference Information				
		• Primary Surname		AS	1	50
		• Given Name 1		AS	1	20
		• Given Name 2		AS	1	20
		• Given Name 3		AS	1	20
		• Given Name 4		AS	1	20
		• Date of Birth		D	8	8
		• Sex	Y	A	1	1
		• CBSA/IRCC Office Number		ANS	1	16
		• Immigration Client Identifier		ANS	1	16
		• Individual Reference Number		ANS	1	32
		• Contributor Case File Number		ANS	1	32
2.8953	IDI	Search Result Information				
		• File Type Searched Code	Y	N	2	2
		• Search Result Code	Y	A	1	1
		• Subject File Number		AN	1	12
		• Surname		AS	1	50
		• Given Name 1		AS	1	20
		• Given Name 2		AS	1	20
		• Given Name 3		AS	1	20
		• Given Name 4		AS	1	20
		• Date of Birth		N	8	8
		• Sex	Y	A	1	1
		• CBSA/IRCC Office Number		ANS	1	16
		• Immigration Client Identifier		ANS	1	16
2.8955	VSR	Verification Search Result	Y	A	1	1
2.8964	IID	Immigration File Number		N	12	12
2.8966	EAD	Effective Amendment Date		D	8	8
2.8967	AMR	Amendment Reason	Y	N	2	2
2.8971	RDA	Immigration Retention End Date		N	8	8

Table C-1: Data Dictionary of RCMP-Defined Tags

Table C-1: Data Dictionary of RCMP-Defined Tags

Tag Number	Tag ID	Tag Name	Pick List	Character Type	Min Field Size	Max Field Size
2.8972	EPD	Effective Purge Date		D	8	8
2.8973	AFN	Subject File Identifier				
		• File Type Code	Y	N	2	2
		• Subject File Number		N	1	12
2.8981	RCC	Requesting Country		N	3	3
14.001	LEN	Logical Record Length		N	4	8
14.002	IDC	Image Designation Character		N	1	5
14.003	IMP	Impression Type		N	1	2
14.004	SRC	Source Agency Identifier		AN	7	7
14.005	TCD	Capture Date		D	8	8
14.006	HLL	Horizontal Line Length		N	3	5
14.007	VLL	Vertical Line Length		N	3	5
14.008	SLC	Scale Units		N	1	1
14.009	HPS	Horizontal Pixel Scale		N	1	5
14.010	VPS	Vertical Pixel Scale		N	1	5
14.011	CGA	Compression Algorithm		AN	3	7
14.012	BPX	Bits Per Pixel		N	1	3
14.013	FGP	Finger Number		N	2	2
14.021	SEG	Finger Segment Position				
		• Finger Number	Y	N	2	2
		• Left		N	1	4
		• Right		N	1	4
		• Top		N	1	4
		• Bottom		N	1	4
14.022	IQM	Image Quality Metric				
		• Finger Number	Y	N	2	2
		• Image Quality Score		N	1	3
14.200	IMTC	Image Type Contained	Y	N	1	1
14.999		Image Data		B	1000	*

Appendix D – List of Acronyms

Table D-1: List of Acronyms	
Acronym	**Definition**
ACKT	Acknowledgement Tenprint
AFIS	Automated Fingerprint Identification System
ANSI	American National Standards Institute
ASCII	American Standard Code for Information Interchange
ATS	Anonymous Tenprint Search transaction
CAR-N	Criminal transaction where the RTID System does not retain the biographical data and fingerprints images contained in the submission. This TOT is defined in ICD 1.7;8.
CAR-Y	Criminal transaction where the RTID System retains the biographical data and fingerprints images contained in the submission. This TOT is defined in ICD 1.7;8.
CBSA	Canadian Border Services Agency
CCRTIS	Canadian Criminal Real Time Identification Services
DCN	Document Control Number
DSB	Departmental Security Branch
EBTS	Electronic Biometric Transmission Specification of the FBI
EFCD	Electronic Fingerprint Capture Device
ERRT	Error Tenprint Submission
ERRV	Error Verification Submission
FBI	Federal Bureau of Investigation
FCC	Five Country Conference
FGP	Finger Number, a.k.a. Friction Ridge Generalized Position per ANSI-NIST
FPS	Fingerprint Section Number
GCMS	Global Case Management System serving IRCC and CBSA users
GMT	Greenwich Mean Time
GSP	Government Service Provider
HLL	Horizontal Line Length

Table D-1: List of Acronyms	
Acronym	**Definition**
IAFIS	FBI Integrated Automated Fingerprint Identification System
ICD	Interface Control Document
ICI	Immigration Client Identifier (previously Field Operational Support System number)
ID	Identification / Identifier
IDC	Image Designation Character
IIS	Immigration Information Sharing
IMA	Immigration File Amend Submission
IMAR	Immigration File Amend Response
IMM	Immigration Submission
IMP	Impression Type or Immigration File Purge Submission
IMPR	Immigration File Purge Response
IRCC	Immigration, Refugee and Citizenship Canada
IRQ	Image Retrieval Request
ITL	Information Technology Laboratory
LEN	Logical Record Length
NFIQ	NIST Fingerprint Image Quality
NIST	National Institute of Standards and Technology
NPS	National Police Services
NSS	Network Services Section
ORI	RTID Agency Identifier
POE	Port of Entry
RCMP	Royal Canadian Mounted Police
RTID	Real Time Identification (RCMP System)
SRE	Tenprint Search Results (response to an ATS or IMM)
SRV	Verification Search Results (response to a VER)

Table D-1: List of Acronyms	
Acronym	**Definition**
TOT	Type of Transaction
TRA	Threat and Risk Assessment
TRB	Temporary Resident Biometric(s)
UCN	Unsolicited Criminal Notification, a TOT sent by the RCMP to authorized partners
VAC	Visa Application Centre
VER	Verification Submission
WBS	Work Breakdown Structure
WSQ	Wavelet Scalar Quantization (used to compress fingerprint images)