

XML MobileID Workshop

ANSI/NIST-ITL 1-2007 Standard

Part 1: Conventional

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- Data Format for the Interchange of Fingerprint Facial, & Other Biometric Information- Part 1
- Voluntary Consensus Standard – Openness
- Developed by a variety of interest
- Original 1986; Revisions 1993, 1997, & 2000
- Two workshops in 2005 to review standard
- Several enhancement including face BPR, Civilian Background prints, Iris record
- April 20, 2007 - the 2007 version approved
- fingerprint.nist.gov/standard

Approved XML Resolution

- Results of the 2nd Workshop
 - Develop a Part 2: Alternate XML version of the 2007 conventional standard
 - Include all 2007 updates from the Part 1 conventional version
 - A 1:1 correspondence of data
 - NIEM & GJXDM objects used
 - One standard : Two Parts

XML Part 2 Objectives

- Preserve backward compatibility
- Conform to NIEM extension rules
- Use NIEM 2 objects where possible
- Define a NIST-ITL namespace
- Conform to documentation requirements

Basic Structure

- Transaction consists of two or more records
- Sixteen numbered record types defined
- Records defined as text, image, or tagged
- Records consist of ASCII text, binary, or combination (tagged) fields
- Fields contain subfield and information items
- ASCII fields can be optional or mandatory
- ASCII field identified by:
 - Record Type, period, field number, colon, & data
 - Example: 1.005:20070918

Record Descriptions

- Mandatory Transaction itself (Type 1)
- Descriptive and rap sheet (Type 2)
- Finger/palm images and minutiae (Type 3-6; 9; 13-15)
- User-defined image (Type 7; 16)
- Signature (Type – 8)
- Facial & SMT (Type 10)
- Iris image (Type 17)
- CBEFF Biometric data record (Type 99)

Information Delimiters

- ASCII separator characters used to delimit text information

FS - Records

GS – Fields

RS – Subfields

US – Information item

- Binary image records (Type 3-6)
- Each consists of defined required fields
 - 8 fixed binary fields (18 bytes)
 - 1 image data field

Example: Type 1 - Transaction

Length (LEN) 1.001:245{GS}
Version (VER) 1.002:0404{GS}
Content (CNT) 1.003:1{US}8{RS}2{US}00{RS}
10{US}01{RS}14{US}02{RS}...
Type (TOT) 1.004:XXX{GS}
Date (DAT) 1.005:20070918{GS}
Priority (PRY) 1.006:1{GS}
.....{FS}

Example of Type 14 –Finger Image

| | |
|-------------------|-----------------------------------|
| LENGTH (LEN) | 14.001:107280{GS} |
| IMG DES CHAR(IDC) | 14.002:02{GS} |
| IMP Type (IMP) | 14.003:20{GS} |
| SRC Agency (SRC) | 14.004:NY0303000 SLAS01000{GS} |
| CAP DATE(FCD) | 14.005:20070916{GS} |
| | |
| IMAGE DATA | 14.000:{FS} |