



Proposed Technical Approach 2005 Revisions to ITL 1-2000

Report from the
**DoD Biometric Standards
Working Group**

April 26, 2005

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Introduction



DoD Biometric Standards Working Group (SWG) Recommendations for 2005 Revisions of ITL 1-2000

Goals

- ▶ Meet DoD Functional Requirements
- ▶ Harmonize Biometric Standards
 - ANSI / INCITS M1 Data Interchange Formats (DIF)
 - Common Biometric Exchange Formats Framework (CBEFF)
- ▶ Support Multiple Biometric Types
- ▶ No Modifications to Fielded Equipment



Harmonizing ITL Record and M1 DIF



- ▶ “More” information in M1 DIF than in ITL Record (otherwise we could just translate)
- ▶ CBEFF formats carry any type of biometrics

Working Group Recommendation

- ▶ Add **New** ITL Type that carries CBEFF Biometric Information Record (BIR) in ITL File



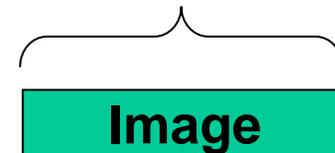
Example ITL 1-2000 File (Image-based)



LOGICAL RECORD LENGTH (LEN)	1.001: <length> ^G _S
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LOGICAL RECORD LENGTH (LEN)	14.001: <length> ^G _S
IMAGE DESIGNATION CHARACTER (IDC)	14.002:01 ^G _S
...	
FINGER POSITION (FGP)	14.013:1 ^G _S
IMAGE DATA (DAT)	14.999: <40KB OF DATA COMPRESSED @ 15:1> ^F _S

ASCII Characters





Example M1 DIF (Image-based)

CBEFF Patron Format

M1 Data Interchange Format

Image

INCITS 381-2004

Field	Size	Valid values	Notes
Format identifier	4 bytes	0x46495200 ('F' 'I' 'R' 0x0)	"FIR" – Finger Image Record
Version number	4 bytes	0x30313000 ('0' '1' '0' 0x0)	"010"
Record length	6 Bytes	36+ Number Views * (14 bytes + Data length)	Includes all finger views
...

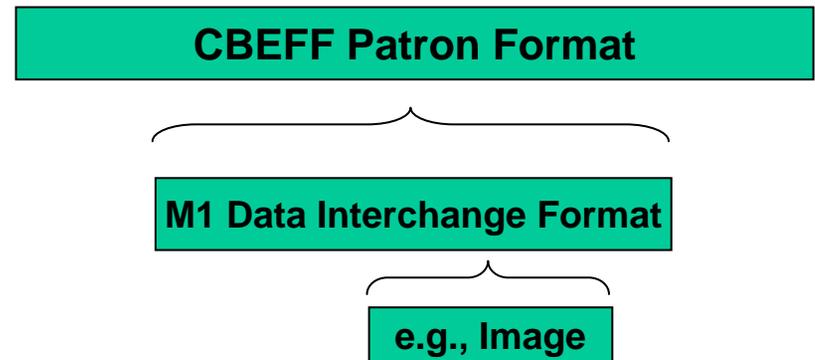


Add a New Type for CBEFF BIR

Type-99

LOGICAL RECORD LENGTH (LEN)	99.001: <length> ^G _S
IMAGE DESIGNATION CHARACTER (IDC)	99.002: <n> ^G _S
CBEFF_BIR_PATRON_FORMAT_OWNER	99.003: <4 ASCII chars > ^G _S
CBEFF_BIR_PATRON_FORMAT_TYPE	99.004: <4 ASCII chars > ^G _S
CBEFF BIR	99.999: <BINARY DATA> ^F _S

ASCII Characters



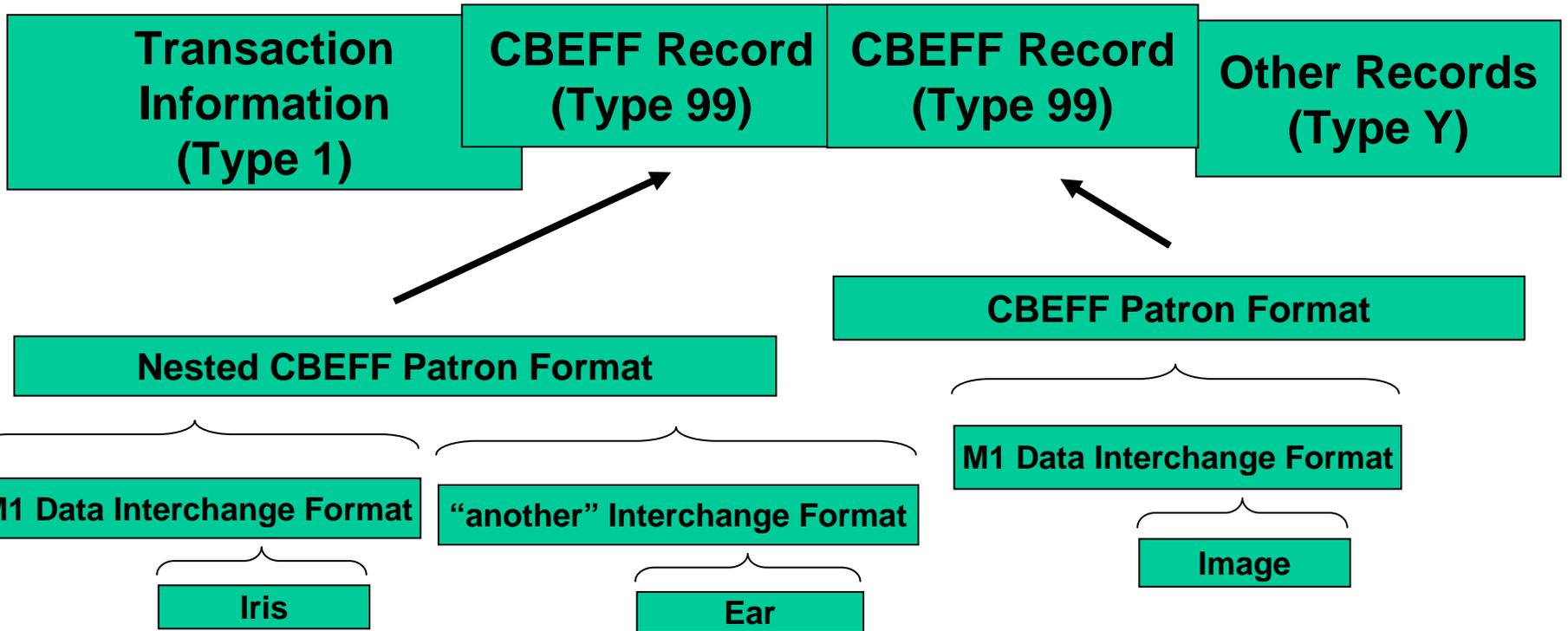


Advantages

- ▶ Supports all CBEFF-registered Patron Formats
- ▶ Supports all registered Format Types in one ITL Type (M1 DIF and others)
- ▶ Data may have been captured in an M1 DIF carried in a CBEFF Patron Format – does not need to be reformatted



Example ITL 1-2000 File





Formal Recommendations

1. Support multiple biometric types by adding a new Record Type for exchanging biometric data through Biometric Identification Records (BIR) that conform to the Common Biometric Exchange File Format (CBEFF) NISTIR 6529-A.
2. Support backward compatibility by not allowing changes to the existing record types.
3. Add text to require that, for an implementation to conform to the specification, any unrecognized or unused data received in a file must be ignored and must not cause a transaction to be rejected. This requirement should apply to both unrecognized/unused fields as well as unrecognized/unused types.
4. Include an informative annex to provide example(s) of the implementation of the DoD Biometric SWG proposed CBEFF Data Record.



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