Best Practice Procedures for The Exchange of Latent Identification Services

The Texas Experience

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Texas DPS

Addressing the Needs of the Texas Latent User

- Latent exchange must:
  - Be Inexpensive
  - Be Easy to Use
  - Be Vendor independent
  - WORK!

Evaluation of solutions in Texas pointed to the deployment of Universal Latent Workstations and a Texas DPS hosted Store & Forward device.

Factors In Decision

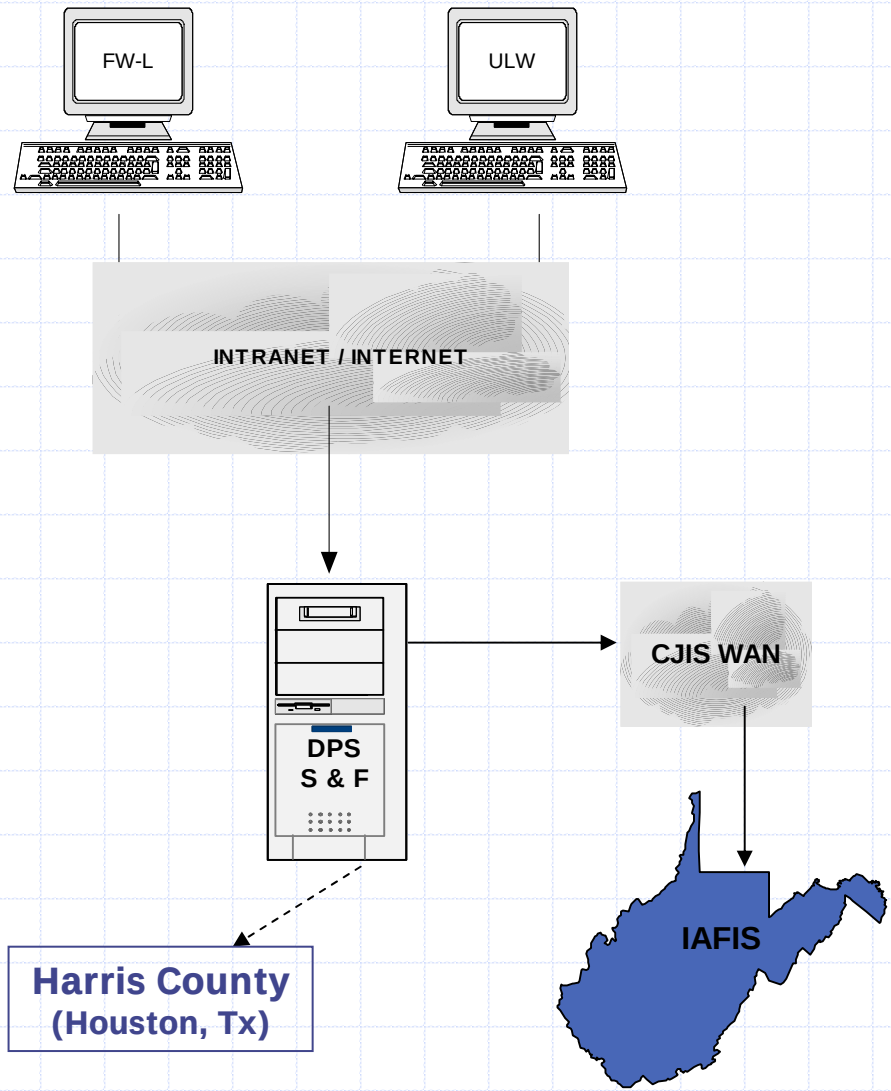
- Inexpensive
  - Costs to latent user are limited to PC, 1000 ppi scanner, WSQ license and internet connectivity costs. ULW software is free.
  - Costs to host include mail server and (if needed) minor upgrades to AFIS system.
- Easy to use
  - ULW software is intuitive and easy to learn
  - Exchanging latents is as simple as using email
- Vendor Independent
  - Type 9 Record provides AFIS vendor with vendor specific feature set
  - Use of standard FBI EFTS TOTs (LFFS / SRL)
- It works
  - Texas users have made many hits against IAFIS and the Texas DPS NEC AFIS utilizing ULW and Type 9 records.

The Texas Implementation

- Outbound Latent Exchange
  - Universal Latent Workstation (ULW) to non-Texas DPS AFIS
- Inbound
  - ULW to Texas DPS AFIS (Inbound)

ULW Outbound

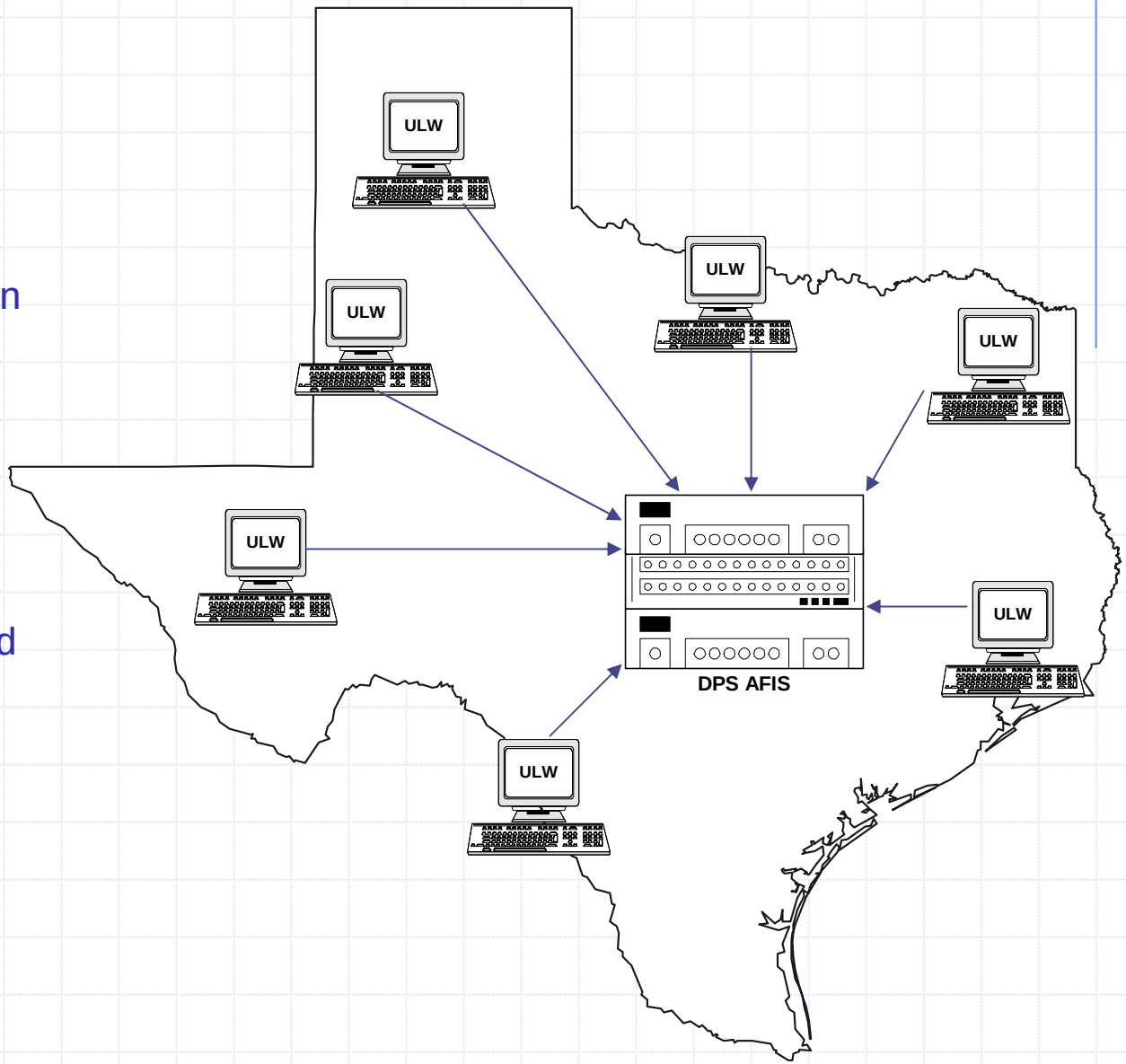
- NEC FW-L (with installed ULW) generated LFFS transaction or stand alone ULW
- LFFS transaction is forwarded to Store and Forward device
- S&F mails the LFFS to the FBI's IAFIS via the CJIS WAN
- LFFS transaction is processed and returned to the contributor as an SRL or ERRL using the same path.
- DPS will be able to route transactions to other AFIS systems as they are able to accept Type 9 submissions.

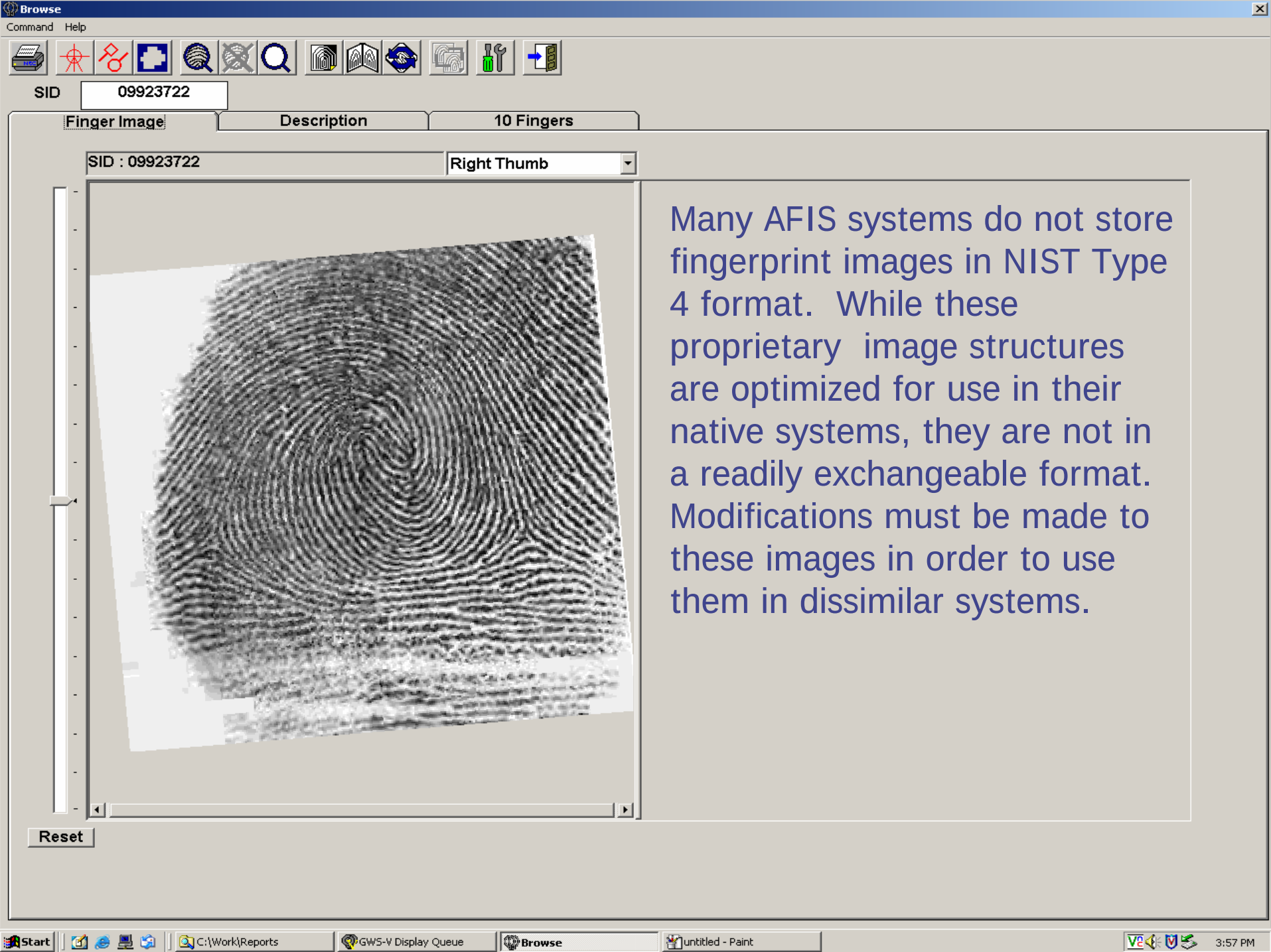


ULW Inbound

Major difference between inbound and outbound concerns the need to manipulate images maintained in AFIS to insure compliance with national standards.

For Texas, images stored in the NEC AFIS are modified by adding the 18 extra bytes of data necessary to distinguish the image as a NIST Type 4 record.




Browse
Command Help
SID 09923722
Finger Image
Description
10 Fingers
SID : 09923722
Right Thumb
Reset
Many AFIS systems do not store fingerprint images in NIST Type 4 format. While these proprietary image structures are optimized for use in their native systems, they are not in a readily exchangeable format. Modifications must be made to these images in order to use them in dissimilar systems.
Start
C:\Work\Reports
GWS-V Display Queue
Browse
untitled - Paint
3:57 PM

TransactionEdit - [999-1234567-01.lffs]

File Edit View Window Verification Help

- Record Type 1
- Record Type 2
  - Type 2 - IDC:0
- Record Type 4
  - Type 4 - IDC:1
    - Field: 1
    - Field: 2
    - Field: 3
    - Field: 4
    - Field: 5
    - Field: 6
    - Field: 7
    - Field: 8
  - Type 4 - IDC:2
  - Type 4 - IDC:3
  - Type 4 - IDC:4
  - Type 4 - IDC:5
  - Type 4 - IDC:6
  - Type 4 - IDC:7
  - Type 4 - IDC:8
  - Type 4 - IDC:9
  - Type 4 - IDC:10
  - Type 4 - IDC:11
  - Type 4 - IDC:12
  - Type 4 - IDC:13
  - Type 4 - IDC:14
  - Type 4 - IDC:15
  - Type 4 - IDC:16
  - Type 4 - IDC:17
  - Type 4 - IDC:18
  - Type 4 - IDC:19
  - Type 4 - IDC:20
- Record Type 7
- Record Type 8
- Record Type 9
- Record Type 10
- Record Type 13
- Record Type 14
- Record Type 15

Item	Data

Grayscale compression algorithm (GCA) - This mandatory one-byte binary field shall occupy the eighteenth byte of a
This mandatory fixed-length field of 6 binary bytes shall occupy the seventh through twelfth
specify the type of grayscale compression algorithm used (if any). A binary zero denotes
positions of a Type-4 record. It shall contain possible finger positions beginning in the leftmost byte of the field (byte seven
algorithms.

For Help, press F1

NUM

Start 1:48 PM

Universal Latent Workstation

File Edit Image View Training Window Help To Do

Zoom (1:1)

SRL: 999-1234567-01.lffs.SRL (1:1)

- Rec 1: Transaction Information
  - Transaction Data
- Rec 2: Descriptive Text
  - Candidate List
  - Case Information
- Rec 4: Fingerprint Image
  - #01; Score 3071
  - #02; Score 2802
  - #03; Score 2697
  - #04; Score 2549
  - #05; Score 2407
  - #06; Score 2343
  - #07; Score 2339
  - #08; Score 2306
  - #09; Score 2232
  - #10; Score 2218
  - #11; Score 2214
  - #12; Score 2122
  - #13; Score 2094
  - #14; Score 2088
  - #15; Score 2070
  - #16; Score 2021
  - #17; Score 2016
  - #18; Score 2006
  - #19; Score 2001
  - #20; Score 1990

LFFS: 999-1234567-01.lffs..1.eft (1:1)

SRL: 999-1234567-01.lffs.SRL (1:1) (500 dpi)

Click on a node to show and edit text or image data in the current file

Start Di... S... I... T... U... T... h... R... 6:06 PM

Additional Considerations

- Security
  - Authentication
  - Encryption
- S&F Functionality
  - Logging
  - Job Cueing
- IIETF Best Practices Document

Questions?

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