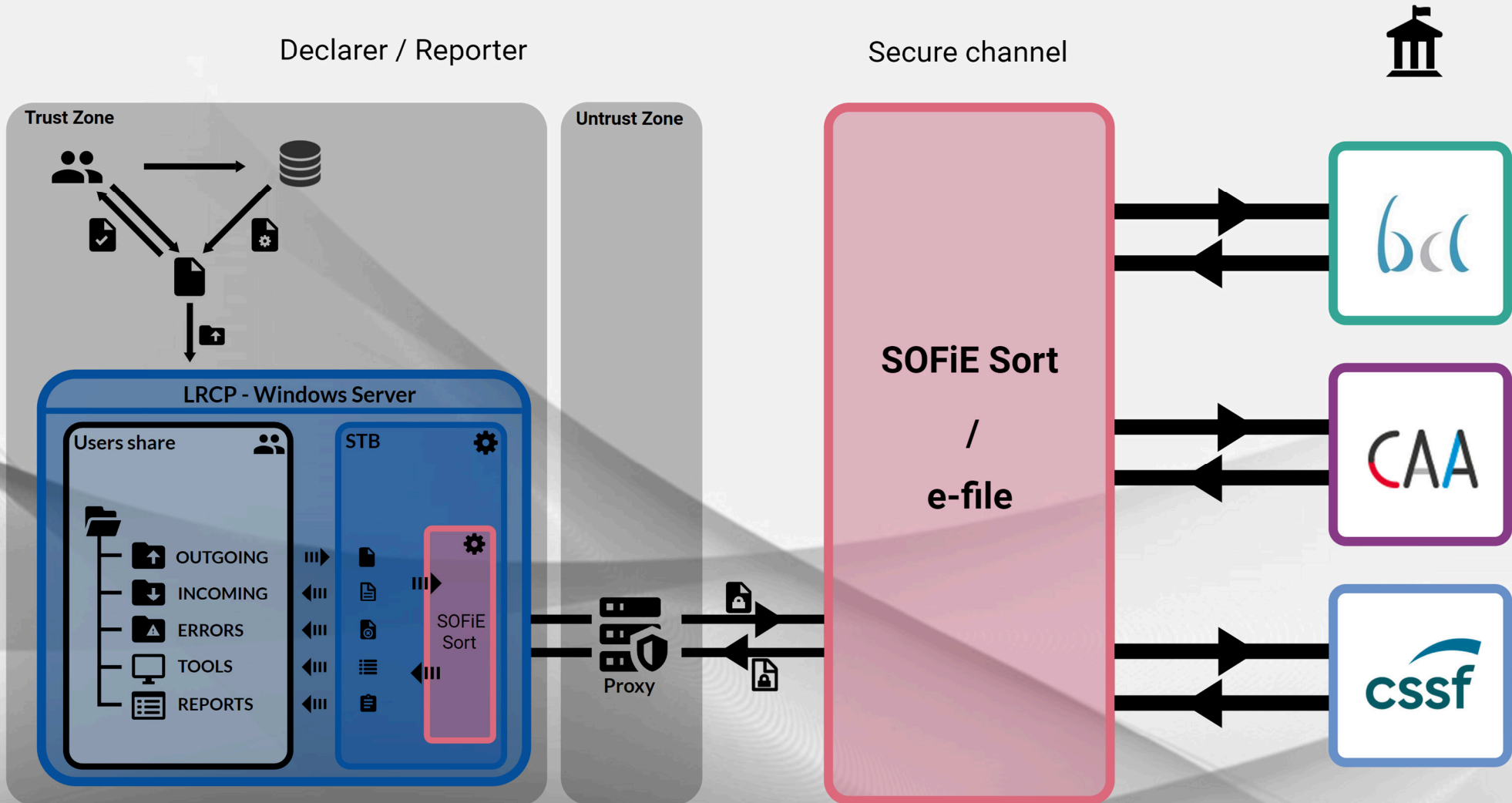


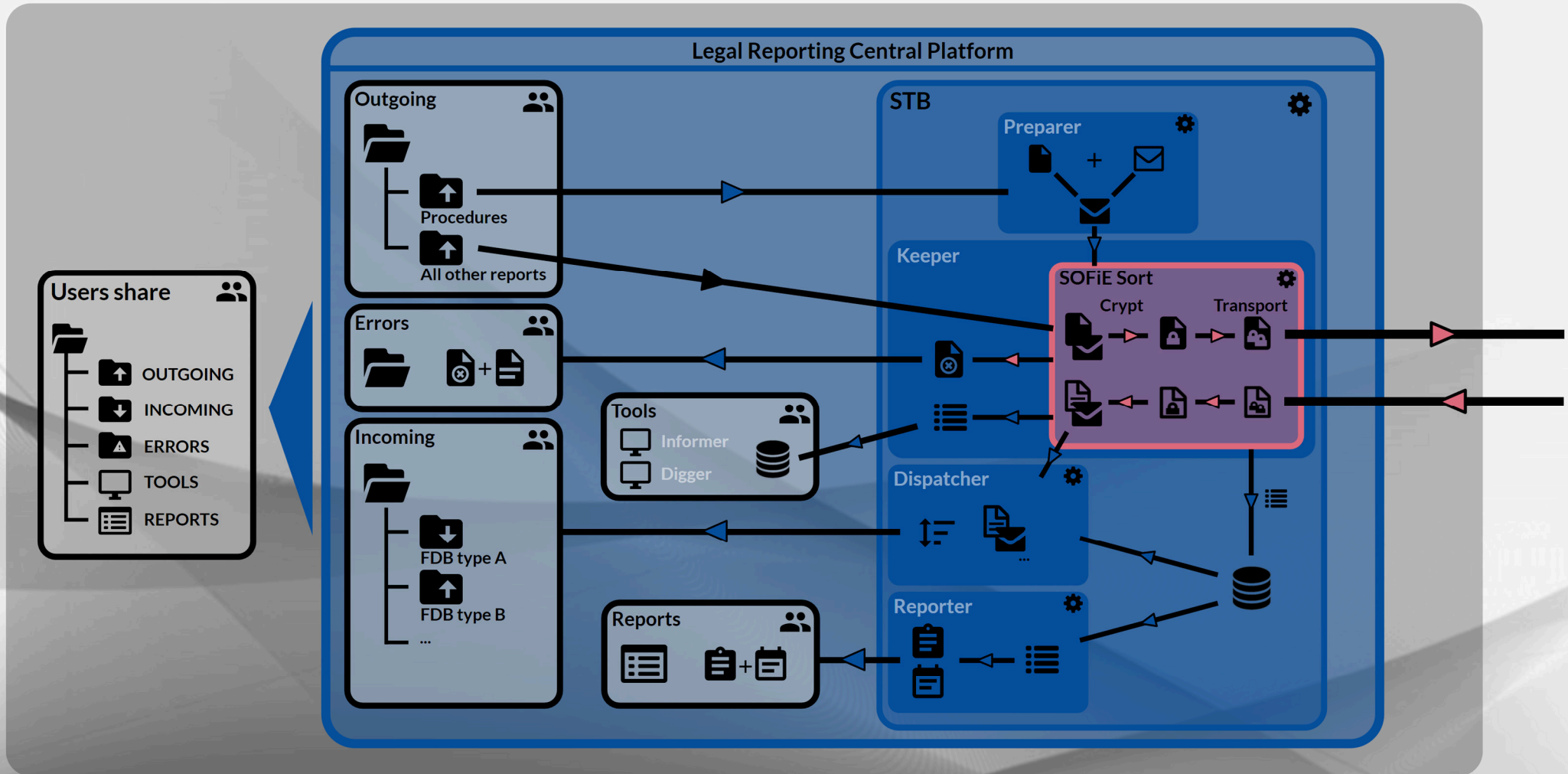
LRCP - Main view

Actual & past period - 2014 to 2024



- | | | | | |
|-----------------|-----------------------|------------------|--------------------|------------------------|
| Report | Auto generated report | Feedback | Report in error | Reconciliation reports |
| Verified report | Crypted report | Crypted feedback | Activity meta-data | Automated processing |

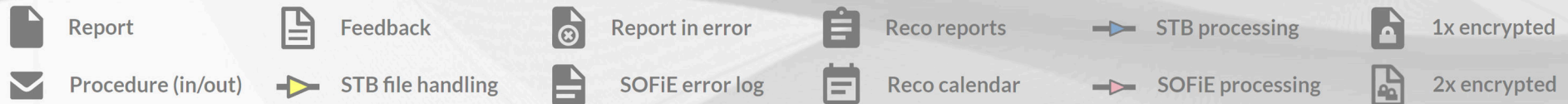
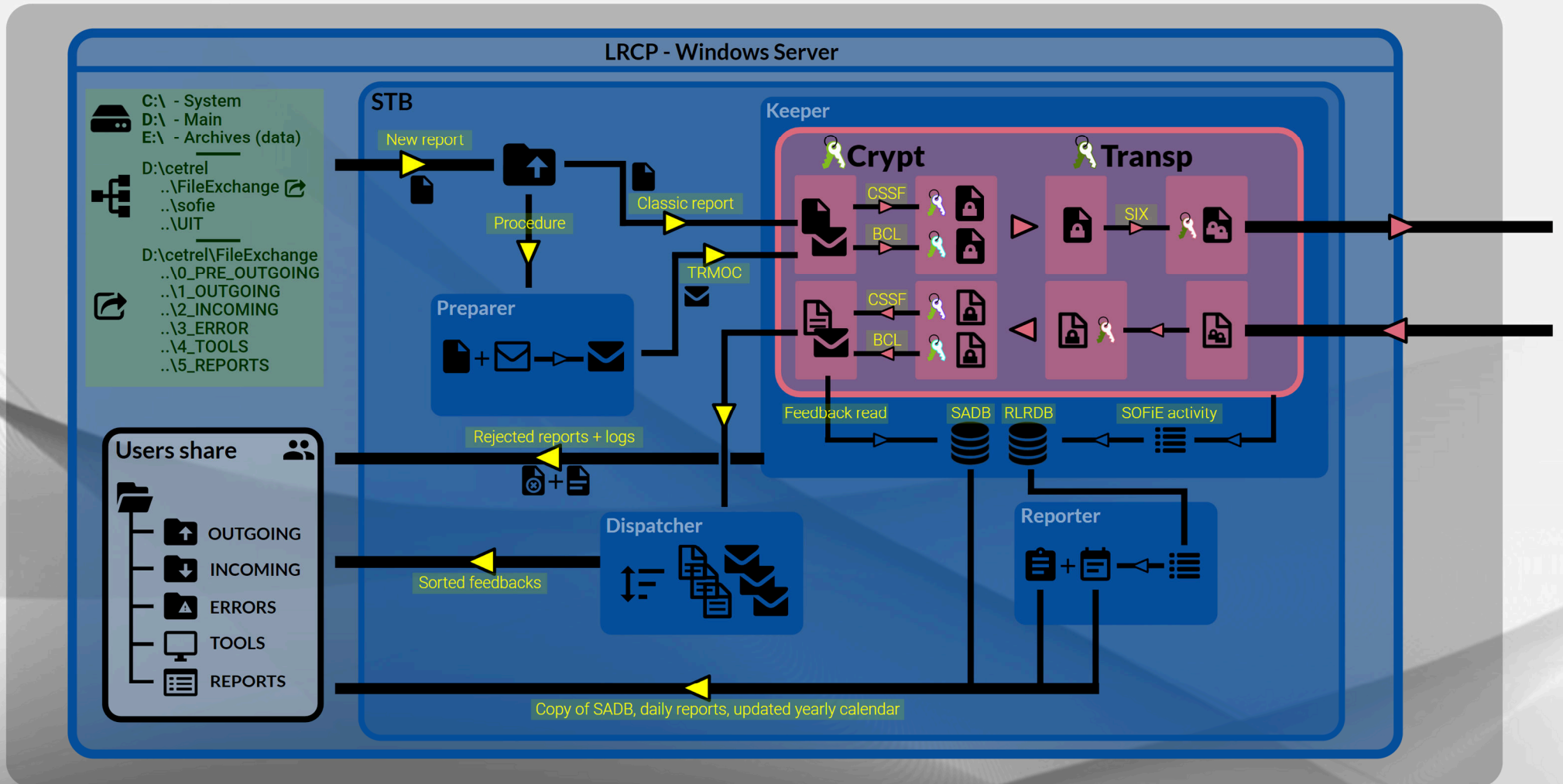
Declarer / Reporter



- Report
- Feedback
- Report in error
- Reco reports
- STB processing
- User interaction
- Procedure (in/out)
- Activity meta-data
- SOFiE error log
- Reco calendar
- SOFiE processing
- Automated processing

LRCP - Workflow

Declarer / Reporter



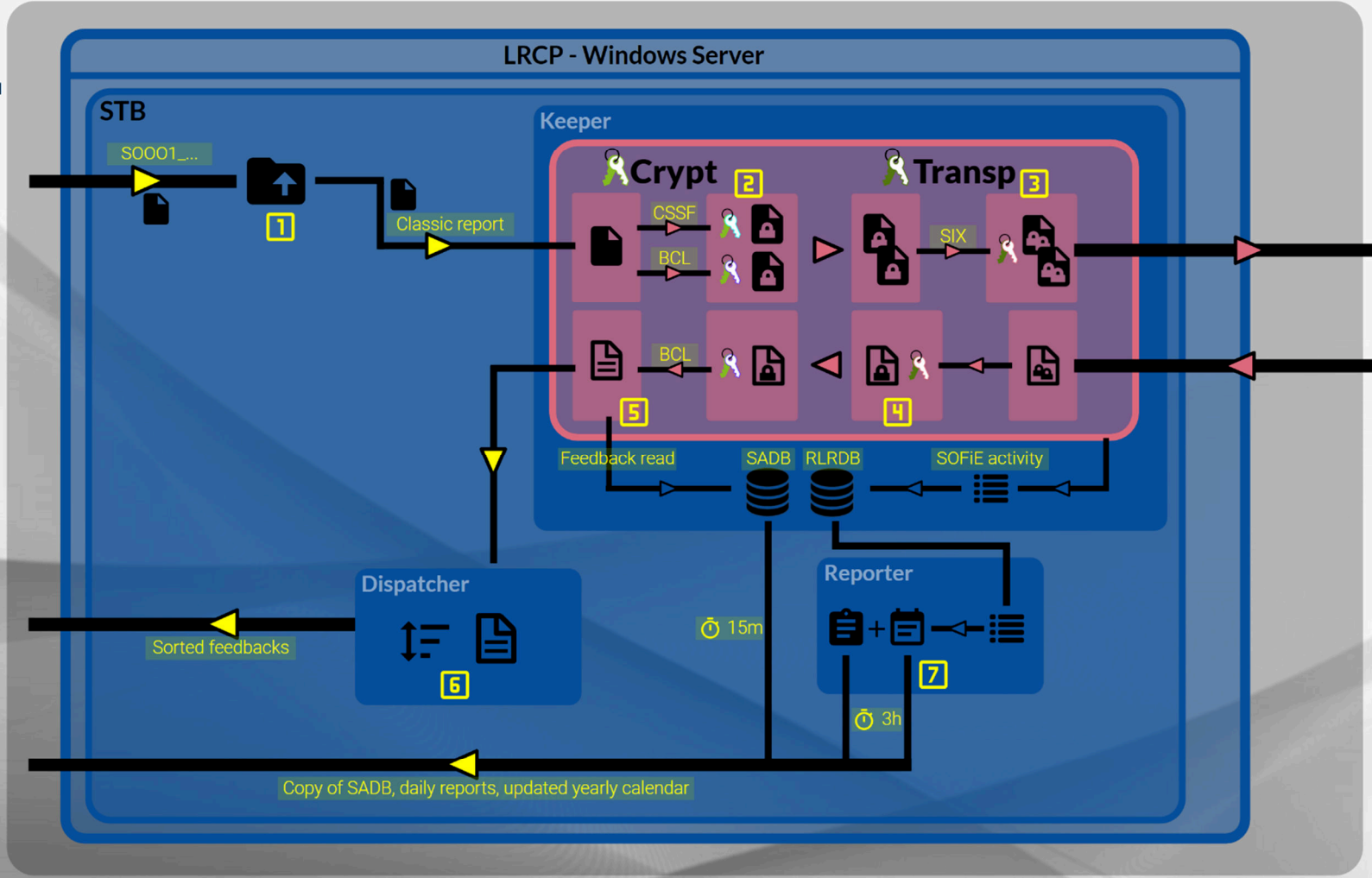
LRCP - Example 1 (for IT)

Declarer / Reporter

Example scope & settings

S0001 type report - Main receiver : BCL - Copy to CSSF
 Ex : S0001_L1_20210215_B000000999_B000000999_20210516_001.xml
 Crypt & Transp execute each 30m.
 Crypt : 9:00 / 9:30 / 10:00 / ... - Transp : 9:15 / 9:45 / 10:15 / ...
 Keeper executes after Crypt & Transp, Dispatcher only after Crypt

- 1 9:50 - Report is deposited in the OUTGOING directory
 - 1 From 1 to X directories can be configured, in this example user's outgoing directory = SOFiE input
- 2 10:00 - SOFiE Crypt validates the report (filename, right XML structure) then duplicates the report and encrypts both copies using declarer's private key and regulator's public key. Keeper updates SADB + its copy for users.
- 3 10:15 - SOFiE Transp encrypts a second time both reports using its second private key and Six's common public key then sends both reports to SOFiE server. It also verifies if any feedback is present (not in this case). Keeper updates SADB + its copy for users. It also updates RLRDB.
- 4 10:45 - SOFiE Transp downloads one file (SOFI.xxx) from the server then proceed with a first decryption using the Transport's private key and Six's common public key. Keeper updates SADB + its copy for users.
- 5 11:00 - SOFiE Crypt decrypts the feedback received (which is an FDBTECH from BCL) using declarer's private key and BCL's public key. Keeper updates SADB + its copy for users.
- 6 11:00+ - Dispatcher reads then sorts (moves) the feedback in a sub-folder of the INCOMING directory.
 - 1 Dispatcher can optionally performs a backup copy of all the feedbacks received (configurable)
- 7 12:00 - Reporter generates a first reconciled report of the current day + updates the yearly calendar.
 - 1 Reporter is by default scheduled to execute a few times per day and not as many time than other STB tools.



| | | | | | | | | | | | |
|--|-------------|--|----------------|--|--------------|--|------------------|--|-----------------|--|------------------|
| | Public key | | Crypt Keypair | | BCL Keypair | | Six Keypair | Encryption or decryption using Crypt or Transport private key with destinationary public key | | | |
| | Private key | | Transp Keypair | | CSSF Keypair | | For CSSF (crypt) | | For BCL (crypt) | | For Six (transp) |

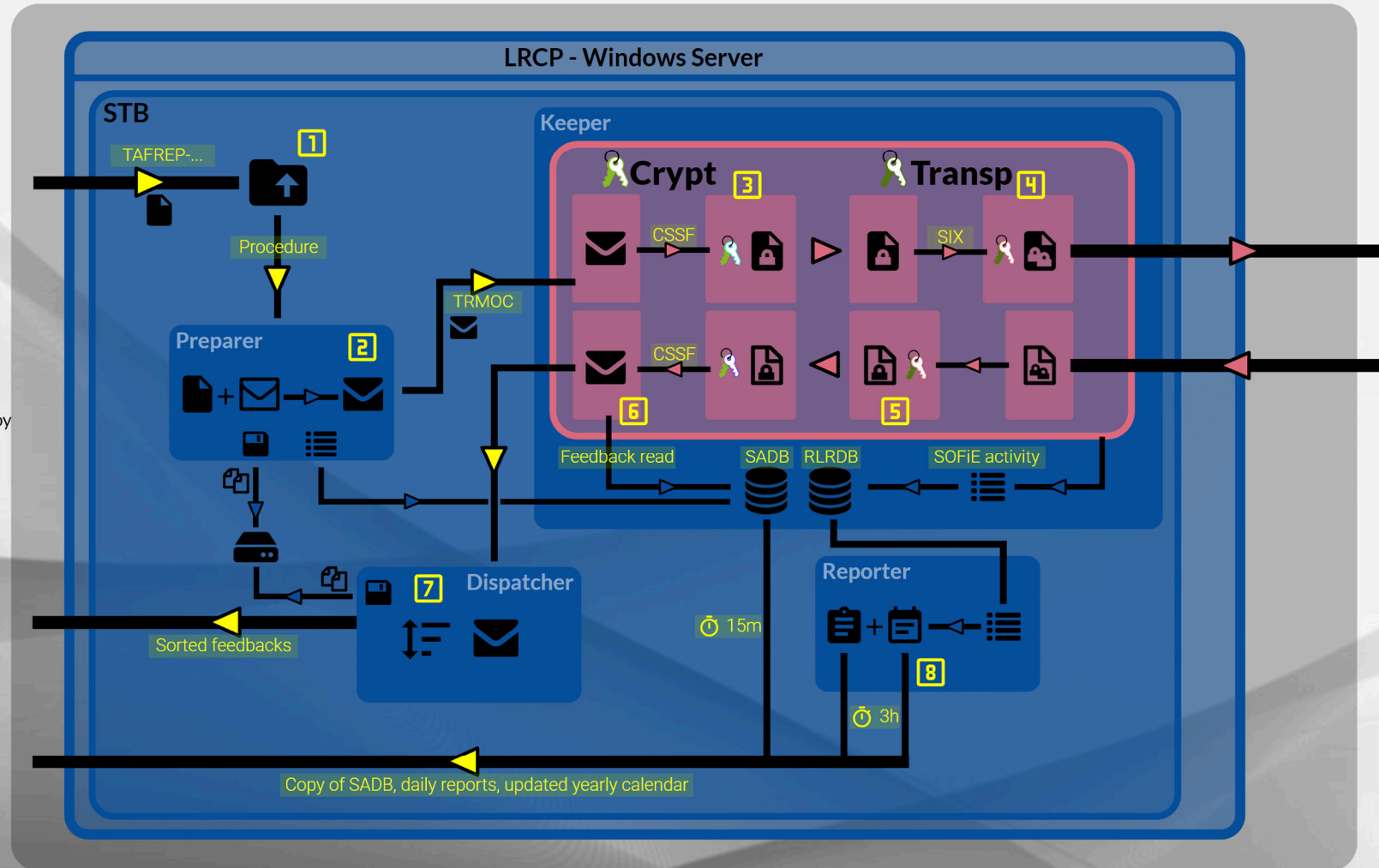
LRCP - Example 2 (for IT)

Declarer / Reporter

Example scope & settings

TAFREP - MiFIR type report - Receiver : CSSF (ESMA)
 Ex. : TAFREP-B00000999-2021-06-01-012345.xml
 Crypt & Transp execute each 30m. Preparer executes before Crypt
 Preparer & Crypt: 9:00 / 9:30 / 10:00 / ... - Transp : 9:15 / 9:45 / 10:15 / ...
 Keeper executes after Crypt & Transp, Dispatcher only after Crypt

- 1 9:50 - Report is deposited in a specific and dedicated OUTGOING directory which will be scanned by Preparer.
- 2 10:00 - Preparer validates the filename of the report then creates a procedure based on the source directory and the profile configured to it. It copies the file to SOFiE Crypt, logs meta-data and performs a backup of the procedure.
 - 1 Preparer also verifies TAF counter & duplicates reports.
- 3 10:00+ - SOFiE Crypt validates the procedure (filename & right) then encrypts it (TRMOC => TRMIC) using CSSF public key. Keeper updates SADB + its copy for users.
- 4 10:15 - SOFiE Transp encrypts a second time the procedure then send it to SOFiE server. Keeper updates SADB + its copy for users. It also updates LRDB based on Preparer data.
- 5 10:45 - SOFiE Transp downloads one or several files from the server then decrypts them (SOFI => TRMID). Keeper updates SADB + its copy for users.
- 6 11:00 - SOFiE Crypt decrypts the TRMID to TRMOD using CSSF's private key. Keeper reads the TRMOD and updates SADB & LRDB. It also update the SADB for users.
- 7 11:00+ - Dispatcher reads then sorts (moves) the feedback in a sub-folder of the INCOMING directory. It performs a backup copy of the feedback procedure.
- 8 12:00 - Reporter generates a first reconciled report of the current day + updates the yearly calendar.
 - 1 A minimum of 3 TRMOD will be returned for one TAFREP, final reconciliation can take up to 7 days.



LRCP - Example 3 (for users)

Example for a BCL TPTIBS report

TPTIBS_L1_202407_DSE0001234_DSE0001234_20240821_001.xml

- 1 9:50 - A TPTIBS report is deposited in the OUTGOING folder.
- 2 10:00 - SOFiE Crypt validates the report (filename, right, XML structure) + encrypts it for the BCL. Keeper updates users Tools DB.
- 3 10:15 - SOFiE Transport encrypts the report a second time and sends it. Keeper updates users Tools DB.
- 4 10:45 - SOFiE Transport downloads one file and proceed with a first decryption. Keeper updates users Tools DB.
- 5 11:00 - SOFiE Crypt decrypts the feedback received. File is the FDBTECH for the TPTIBS sent 1h sooner. Keeper updates users Tools DB.
- 6 11:00+ - Dispatcher reads then sorts the FDBTECH feedback in a sub-folder of the INCOMING directory.
- 7 12:00 - Reporter generates a first reconciled report of the current day + updates the yearly calendar.

Declarer / Reporter

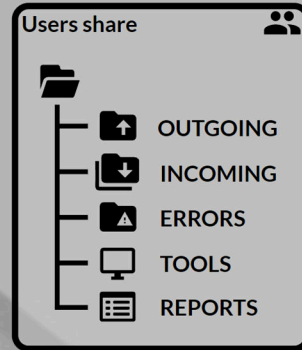
User's view from workstation (file explorer)

Example A - 1 level sorting:
By name + DSE code

- ReportingShare (J:)
 - 1_OUTGOING
 - 2_INCOMING
 - _Unknown_ToClassify
 - BlackCorp_DSE05555555
 - BlueCorp_DSE01111111
 - GreenCorp_DSE03333333
 - GreyCorp_DSE04444444
 - RedCorp_DSE02222222
 - WhiteCorp_DSE012134567
 - YellowCorp_DSE06666666
 - 3_ERROR
 - 4_TOOLS
 - 5_REPORTS

Example B - 2 levels sorting:
By Team then entity name or short name

- ReportingShare (J:)
 - 1_OUTGOING
 - 2_INCOMING
 - _Unknown_ToClassify
 - TeamA
 - CircleCorp
 - RoundCorp
 - SquareCorp
 - TeamB
 - TeamC
 - TeamD
 - 3_ERROR
 - 4_TOOLS
 - 5_REPORTS



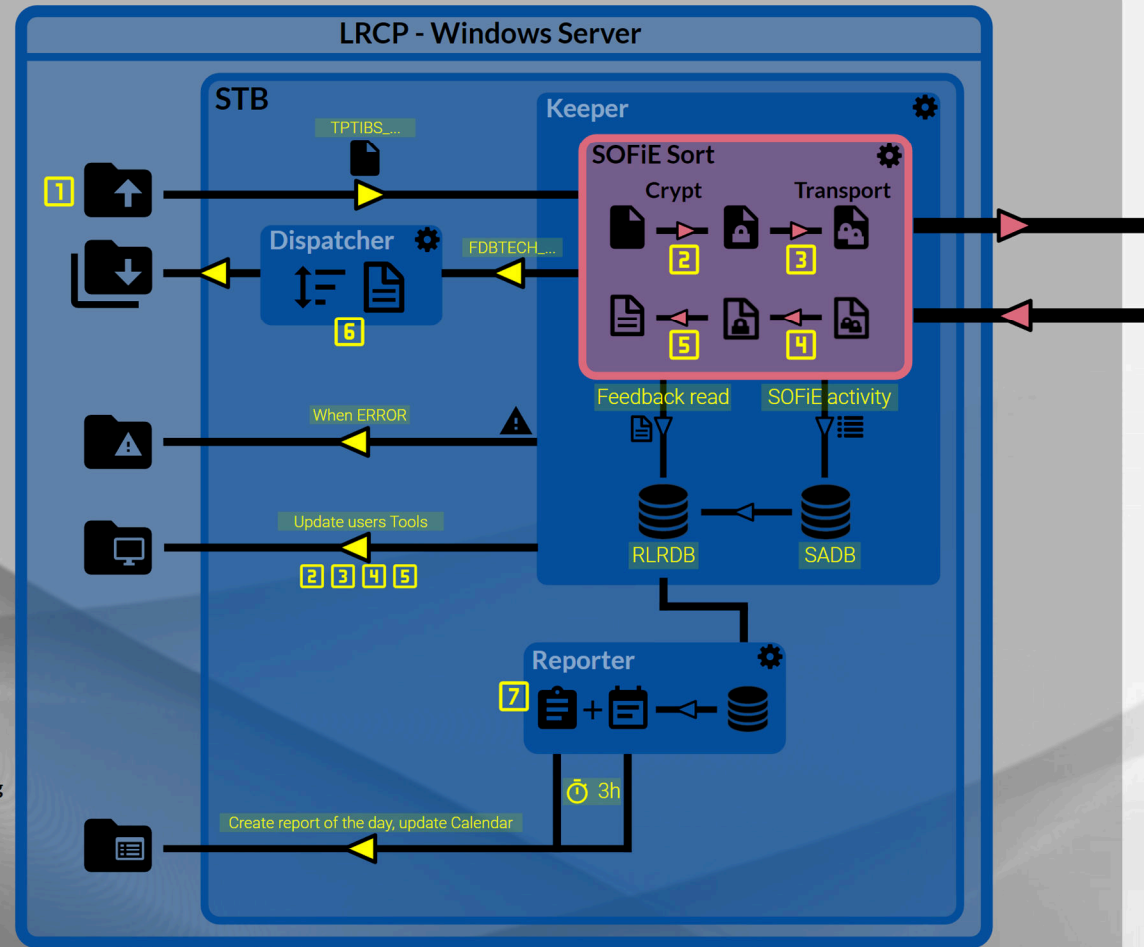
Users manually copy reports here - OR - Macros directly generate reports here

All feedbacks are sorted and stored under this directory. Two levels of sorting

All errors are stored in this directory.

Interactive tools for users:
Informer - daily status and monitoring
Digger - for historic researches

Daily reconciled reports are stored in this directory
Yearly calendars are also stored here



| | | | | | |
|----------|----------------|---------------|----------------------|---------------------|------------------|
| Report | Error detected | Reco reports | Automated processing | Windows application | STB processing |
| Feedback | Databases | Reco calendar | Meta data | STB file handling | SOFiE processing |

LRCP - Error handling

Declarer / Reporter

- 1 Preparer will send an email if a problem occurs. A separated email adresse can be configured for Picker sub-module
- 2 Crypt : report's validation or 1st encryption error.
 ❶ This type of error represents the most common SOFiE error : bad filename or bad file structure.
- 3 Transp : 2nd encryption error (rare)
- 4 Transp : error during upload or download of crypted report (rare : line cut or SOFiE server problem)
- 5 Transp : 1st decryption error (rare)
- 6 Transp : 2nd decryption error (rare)
- 7 Crypt : 2nd encryption error (rare)
- 8 Keeper : In case of a SOFiE error Keeper moves the report in error + its dedicated log to user's share and sends a mail to a list of email addresses. In case of a Keeper error, it writes a specific ERROR line in its log.

