

Information Material: KDPW ARM Message Flows

DATE	VERSION	DESCRIPTION
13.09.2017	1	Creation
28.09.2017	2	Updates including: - addition of cancellation flows, - additions to the unique transaction identifier algorithm for market transactions, - modification of auth.enr.001.01 flows, - additions to the auth.enr.001.01 processing rules, - additions to the simplified reporting rules.
14.11.2017	3	Updates including: - additions to the unique transaction identifier algorithm for market transactions, - additions to the status report and admi.err generation rules in the context of linkages with the input report, - additions to rules1) applicable to status ARWR (in the status table).
28.02.2018	4	Addition of rules for the construction of references in the message admi.err.001.01 issued to the message transmitted by XRAW queues.
28.04.2024	5	Updates including: - removal of chapter on TR reporting mode due to implementation of EMIR Refit and change of input messages. - amendment to message flowchart

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I. Definitions

ARM Service – service of reporting details of transactions to the competent authorities or the ESMA on behalf of IF, offered by KDPW as an Approved Reporting Mechanism (ARM) referred to in Article 4(1)(54) MiFID II.

IF – investment firm obligated to report transactions under Article 26 MiFIR.

SHORTCODE – identifier used in market orders and reports sent by IF directly to KDPW, which identifies the counterparties of the transaction (buyer, seller) and other entities/individuals specified in reports in the fields: Buyer/Seller decision maker; Investment decision within firm; Execution within firm.

Participant – entity which is a party to an ARM agreement concluded with KDPW.

Supervisor – authority designated by each Member State according to Article 67 MiFID II.

FIRDS - Financial Instrument Reference Data.

KDPW_TR – trade repository service offered by KDPW.

Report – new report or cancellation of a report containing the transaction data defined in Table 2 to RTS 22.

RTS 22 – Commission Delegated Regulation (EU) 2017/590 of 28 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the reporting of transactions to competent authorities.

Table 2 to RTS 22 – Table 2 of Annex 1 to Commission Delegated Regulation (EU) 2017/590 of 28 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the reporting of transactions to competent authorities.

WSE - Warsaw Stock Exchange

II. Icons



III. Messages

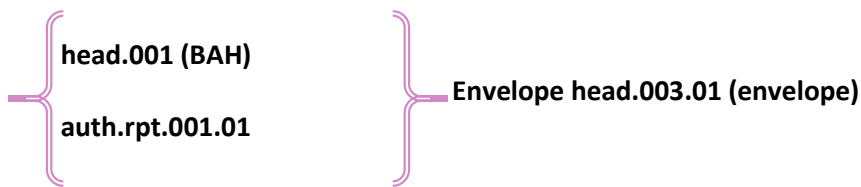
1. File – “message”

A file includes the following parts of an envelope (message head.003):

- a. Header: Business Application Header - head.001.001.01;
- b. Domain message.

A file is referred to as “message” for practical purposes. The message name is derived from the domain message in the file.

File example:



The message is used to transmit all domain messages used in the ARM service.

In the KDPW_ARM service, files (messages) should be sent to receiver **0001** – ARM communication code.

2. List of domain messages

Domain messages used in relations with Participants in the ARM service:

- auth.rpt.001.01 – used to send reports to ARM with the same structure as auth.016.001.01 plus additional fields for SHORTCODE replacing full personal data;
- auth.str.001.01 – auth.rpt status report;
- auth.016 – notification sent to ARM participants with a copy of the report to the Supervisor (Supervisor report is sent if successfully processed);
- auth.clt.001.01 – used to report data of individuals or entities identified with a SHORTCODE in reports;
- auth.stc.001.01 – auth.clt.001.01 status message;
- auth.enr.001.01 – supplementary message used to report additional transaction details not available from GPW/BondSpot systems;
- auth.ste.001.01 – auth.enr.001.01 status message;
- admi.err.001.01 – feedback message for each input message non-compliant with the XSD of ARM messages and each message unknown to ARM. As a result, **FileInf** section of admi.err.001.01, tag **Nm** reports an identifier according to the following algorithm:

<Nm>XXXX.YYYYMMDD. 123456789</Nm>

where:

- XXXX – KDPW_ARM institution code,
- YYYYMMDD – date of transmission by user,
- 123456789 – sender MQ Manager identifier.

The section also includes the KDPW_ARM receipt timestamp – tag: **RcvDtTm** .

IV. Completing status messages sent from KDPW_ARM to Participants - linkages to input reports.

ARM messages sent to Participants are completed as follows:

- The Related section and, consequently, the Business Message Identifier tag are not populated in the feedback file header (head.001).
- The Message Report Identifier **MsgRptIdr** tag in report status messages (str, stc, ste) is populated with the input message identifier reported in the **BizMsgIdr** tag of BAH (head.001.001.01). Its section (**StsAdvC**) is a 1..n section, which is how linkages are built for any number of input messages.
- If auth.str.001.01 reports a change of transaction status (e.g., for a transaction Cancel report, ARM reports new transaction status ARCL in auth.str) or in simplified reporting for transactions from the market, the **MsgRptIdr** section is not populated.
- Linkages to records (transaction/SHORTCODE) are reported in the **RcrdSts** section of the following messages:
 - status messages in the tags:
 - **OrgnlRcrdId** in auth.str;
 - **OrgnlRcrdId** in auth.ste;
 - **OrgnlShrtCd** in auth.stc.
 - notification messages (auth.016) in the tag:
 - **TxId**.
- For simplified reporting, ARM's status message for a transaction from the market contains the unique transaction identifier. Given that the transaction identifier on a GPW / BondSpot market is not unique within the day and for an ISIN, to ensure that the identifier is unique, in practice, it will combine the following elements:

Unique transaction identifier algorithm for market transactions:

YYYYMMDD || MIC || Symbol || P || Trade ID

where:

- **YYYYMMDD** – trade date on the market – format 8 N.
- **MIC** – four-character MIC code. Allowed values:
 - **XWAR** – WSE main regulated market,
 - **WBON** – WSE bond market Catalyst – main market,
 - **WMTF** – WSE bond market Catalyst – MTF,
 - **WETP** – WSE ETF and structured instruments market,
 - **WDER** – WSE regulated derivatives market,
 - **RPWC** – BondSpot regulated main market,
 - **XNCO** – WSE ATS,
 - **BOSP** – BondSpot ATS,
 - **TBSP** – Treasury BondSpot,
 - **XOFF** – Over-the-counter transactions - quoted instruments,
 - **XGLO** – WSE ATS – GlobalConnect.
- **Symbol** – instrument identifier – format 12 Txt:
 - pseudo (quasi) ISIN for block trades;

- ISO 6166 ISIN for market trades.
- **P** – client side. Allowed values:
 - **B** – buyer (buyer);
 - **S** – Seller (seller),
 - **A** – All (both sides)
- **Trade Id** – GPW trade identifier – max 27 N.

V. Statuses

Given the KDPW Group standards and with a view to increased flexibility of the service, ARM only distributes trade (record) status messages to Participants, and it does not report the message status (MsgStatus).

1. Statuses generated after Supervisor checks.

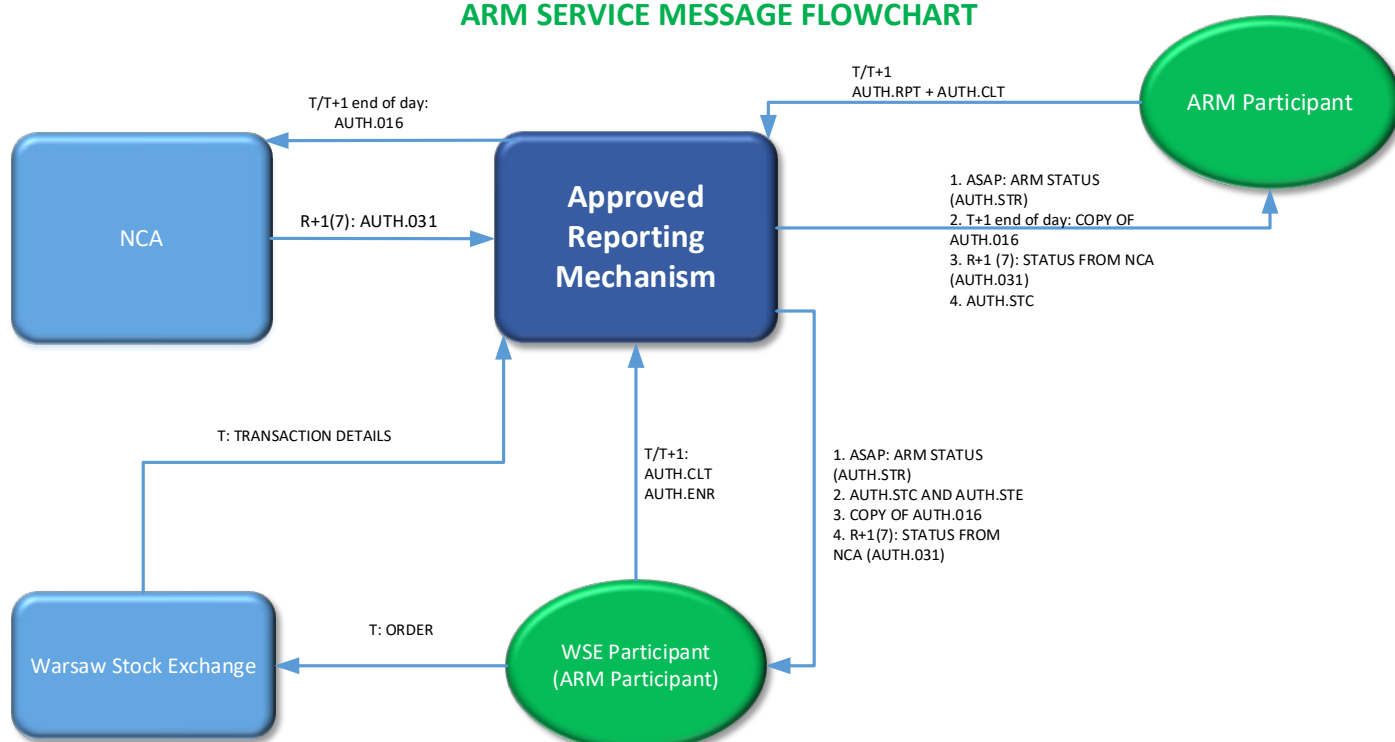
List of Supervisor status codes for validations of a single report/trade			
Status code	Name	Definition	Application in reports of reporting entities
ACPT	Accepted	Transaction is accepted.	In the first validation, ACPT is reported only in status file statistics.
ACPD	Accepted After Pending	Transaction is pending, previous report is accepted.	Not in use.
PDNG	Pending	Transaction is pending.	Status code used where transaction report cannot be validated in the absence of instrument reference data.
WARN	Warning	Transaction is accepted with warning.	Not in use.
RJCT	Rejected	Transaction is rejected.	Status code used for report errors.
RJPD	Rejected After Pending	Transaction is pending, previous report is rejected.	Not in use.

2. ARM Statuses generated after ARM checks.

List of ARM status codes for validations of a single report/trade			
Status code	Name	Definition	Comments
ARAC	Accepted	Accepted by ARM.	
ARPD	Pending	Processing is pending at ARM level.	Used in cancellation processing.
ARCC	Cancellation Completed	Cancellation request completed by ARM.	Used in cancellation processing if the transaction has not yet been reported to Supervisor.
ARWR	Accepted with Warning	Accepted by ARM with warnings.	Status means that: - instrument is not included in FIRDS list; - transaction to be cancelled is not present in KDPW_ARM database.
ARRJ	Rejected	Rejected by ARM.	
ARCL	Removed	Removed from ARM.	Status used when the transaction status changes to Removed from ARM.
ARRW	Repair Warning	ARM warning, report for repair.	Status used in simplified reporting in the absence of personal data when transaction is received by ARM from the market.

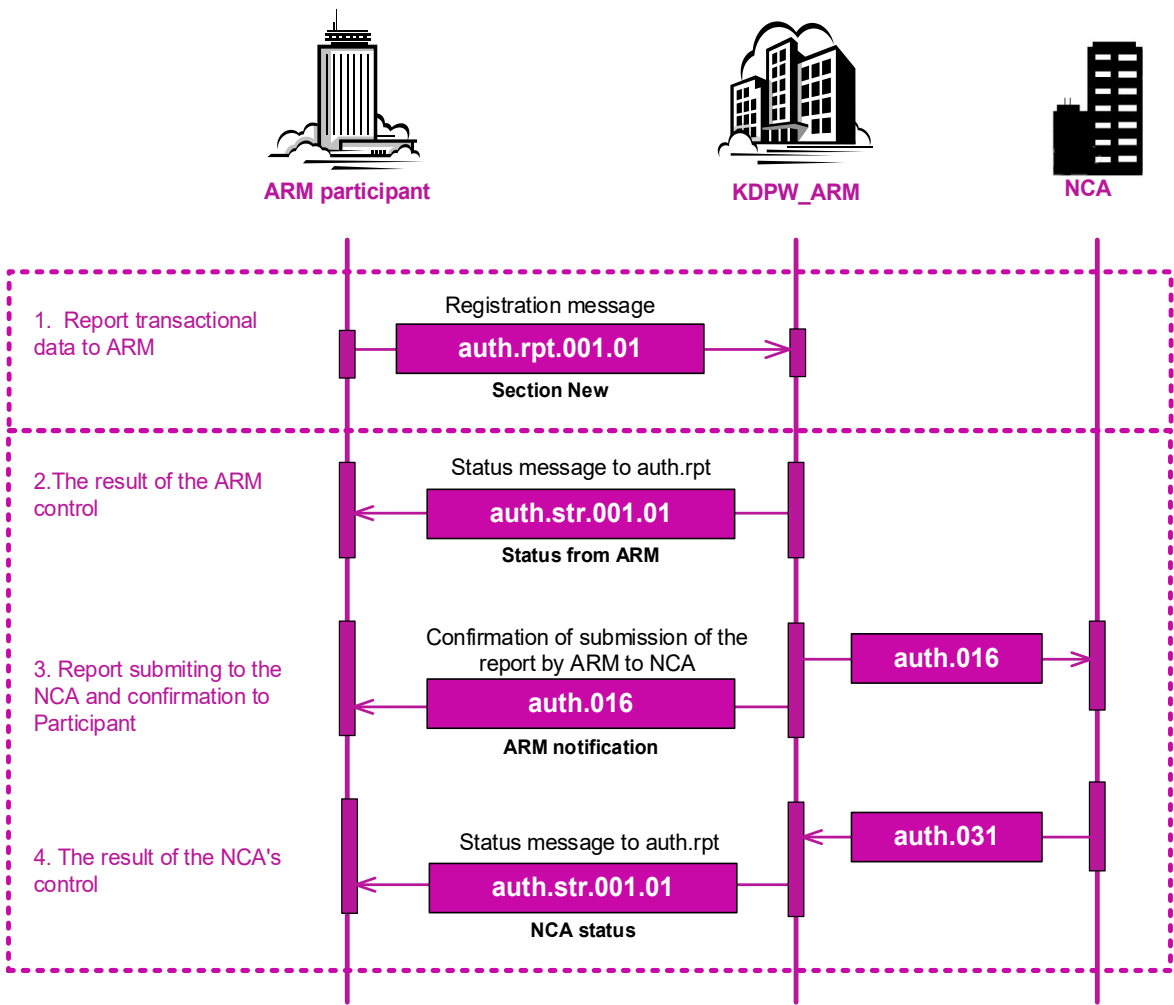
VI. Flowchart

ARM SERVICE MESSAGE FLOWCHART

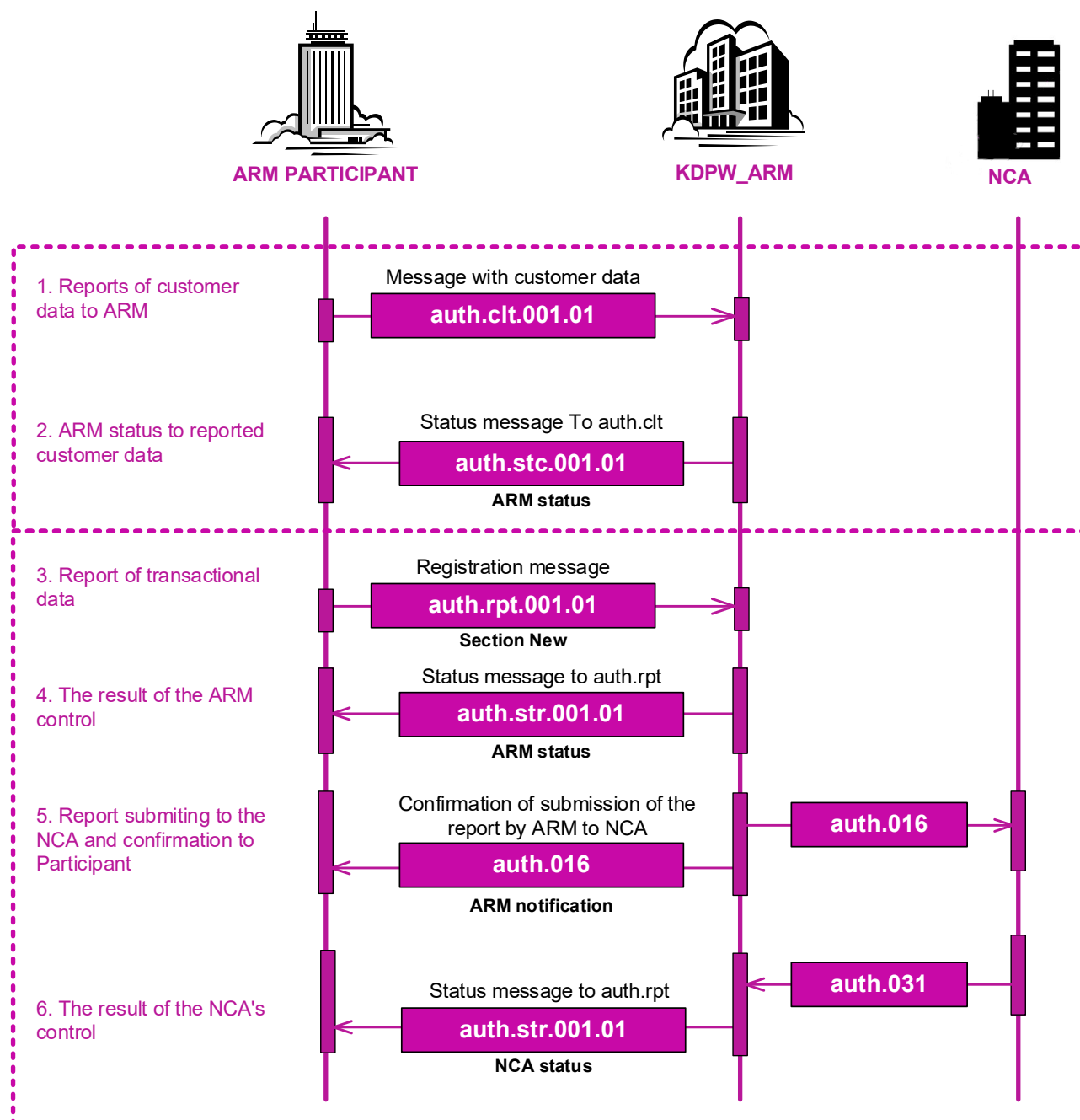


VII. Message flows in direct reporting to ARM.

1. Reporting all data in a single message



2. Reporting with a personal data message



VIII. Message processing and flows in simplified reporting.

1. Message processing and flows in simplified reporting.

The rules for building reports in simplified reporting are presented in the *Information Material on the Approved Reporting Mechanism (ARM) System*. In addition, this section presents cases of processing of transaction details received from the market in the context of the relationship with details reported in auth.clt.001.01 and auth.enr.001.01.

Rules applicable to both messages

- ARM performs preliminary checks immediately upon receipt of post-trade files from the market and it reports the validation results to the ARM participant who is a market member in auth.str.001.01.
- The time when ARM receives post-trade files from the market and the time when Supervisor reports are generated are separated by a period of time necessary for data addition or enrichment.
- When enriching transaction details from the market with details reported in auth.clt.001.01 and auth.enr.001.01, KDPW_ARM performs checks of the Supervisor report. If the transaction status in ARM changes (after the preliminary check), the participant receives the status message auth.str.001.01.
- The cut-off time for the reporting of the reference data of the SHORTCODE for a transaction from the market or enrichment of a transaction from the market is the time of generating the Supervisor report.
- When generating the Supervisor report, ARM uses reference data reported in auth.clt.001.01 and auth.enr.001.01 valid at the time of generating the Supervisor report.
- The transmission of a Supervisor report is confirmed with a copy of the report (auth.016) sent to the participant.

Rules applicable to auth.clt.001.01.

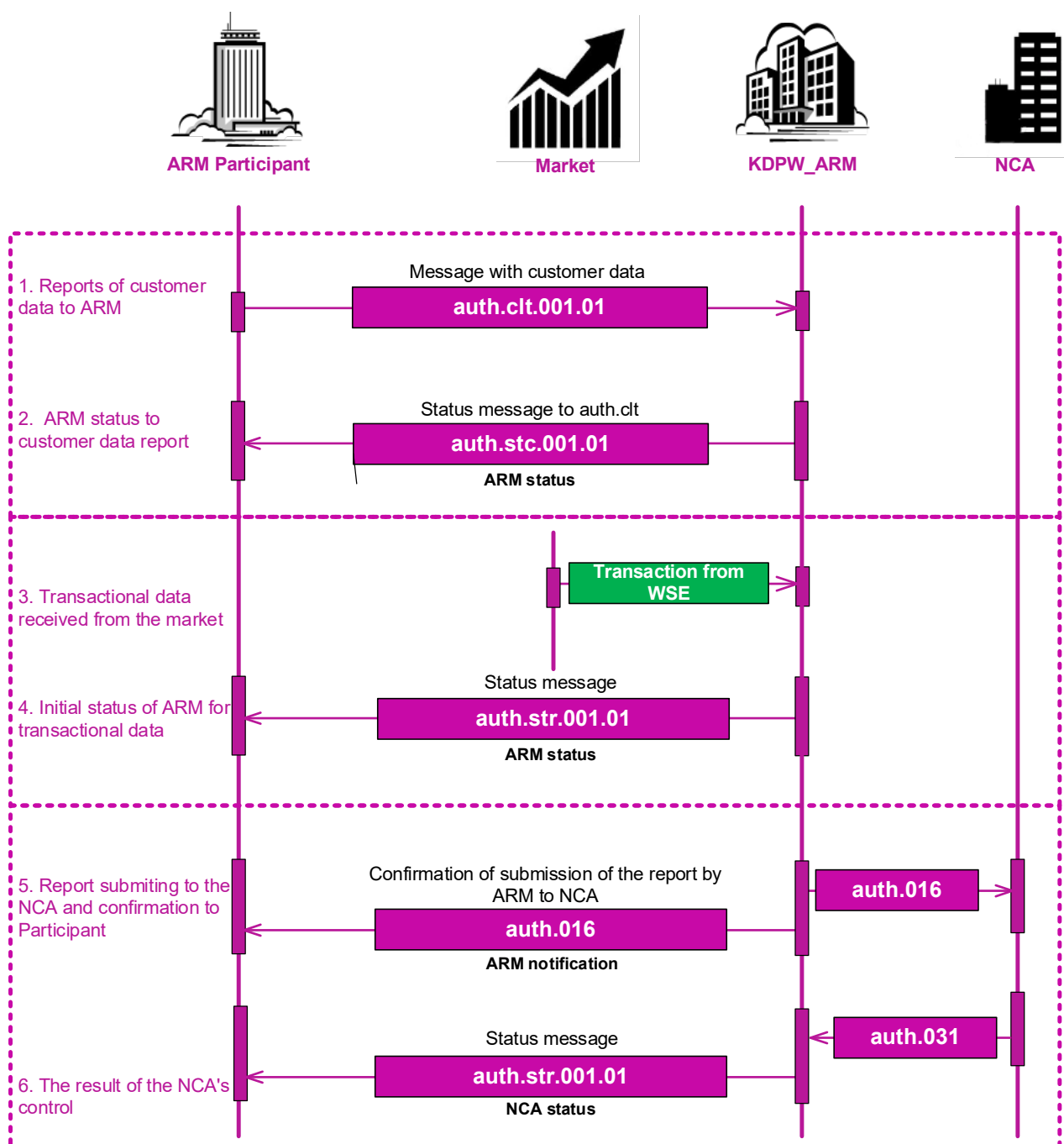
- Counterparties or Submitting party, Investment decision within firm and Execution within firm, where applicable, are identified with a SHORTCODE in the details of a transaction from the market.
- Supervisor reports are sent on the basis of transaction details only if the IF (market participant) reports the personal data for the SHORTCODE of a transaction from the market in auth.clt.001.01. In the absence of personal data at the time of generating the Supervisor report, the report of the transaction from the market is rejected.
- When applying the reference data from the SHORTCODE database to a transaction report, ARM checks that the reference data are consistent with the context in which the SHORTCODE is used in the post-trade file from the market, in particular:
 - for Submitting party fields, the SHORTCODE included in the ARM database must refer to LEIs;

- for Investment decision within firm and Execution within firm, the SHORTCODE included in the ARM database must refer to the employee National_Id or algorithm identifier;
- for Buyer and Seller, the SHORTCODE included in the ARM database must refer to personal data of the client if the client is an individual;
- for Buyer / Seller decision maker (SHORTCODE may be reported in an enrichment message), the SHORTCODE included in the ARM database must refer to personal data of the client if the client is an individual.

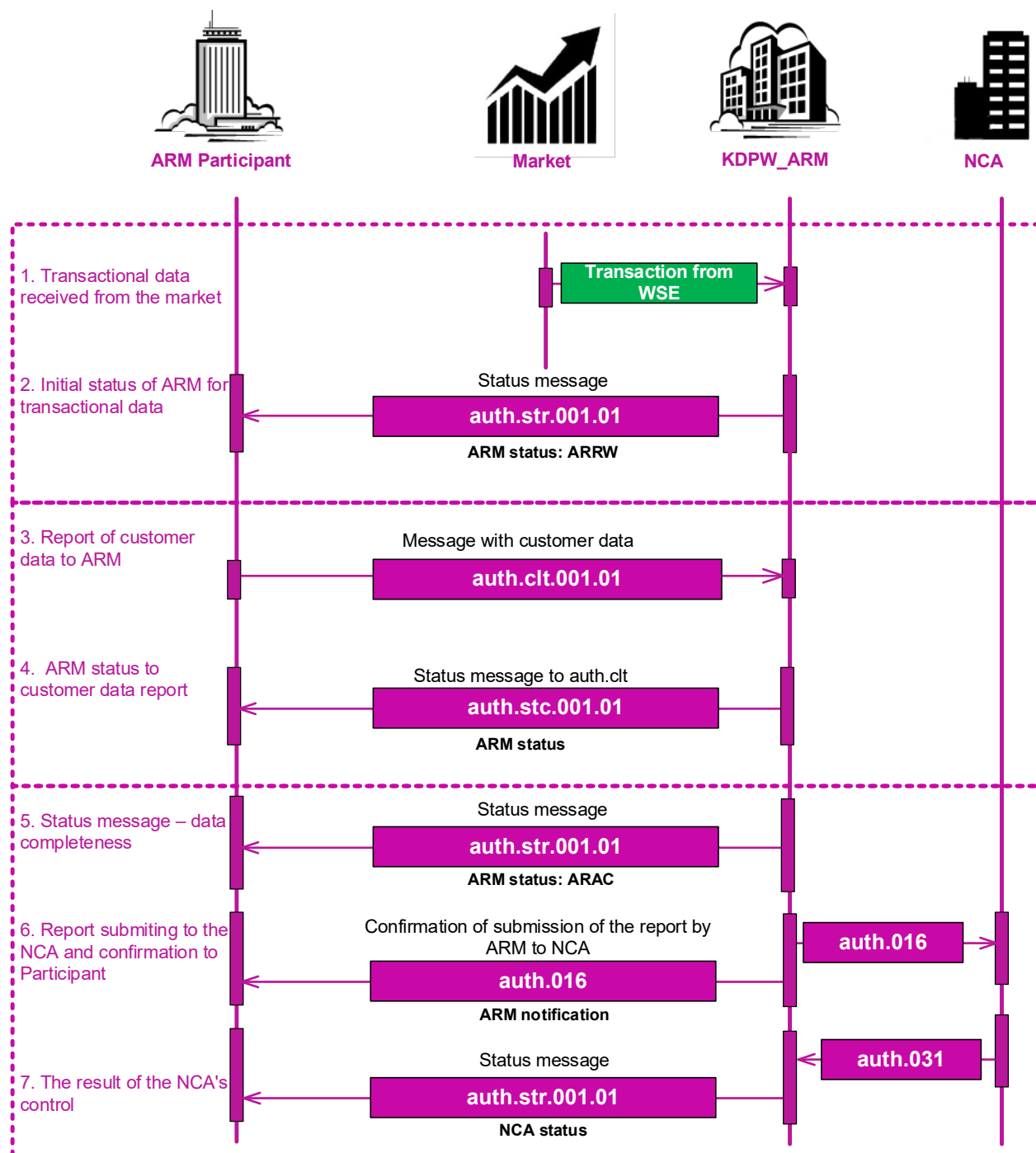
Rules applicable to auth.enr.001.01.

- Transactions from the market are enriched depending on the terms of the transaction. If the report should include details which are not included in the post-trade file from the market, such details should be reported in auth.enr.001.01. This includes the following fields:
 - Buyer decision maker or Seller decision maker,
 - Short selling indicator,
 - Complex trade component ID.
- In the absence of an enrichment message, no enrichment is performed. In that case, the Supervisor report is based on post-trade details from the market and the reference data of the SHORTCODE (reported to ARM in auth.clt.001.01).
- Transactions executed on Treasury BondSpot are not enriched. All report fields are completed on the basis of data in the post-trade file and in auth.clt.001.01.
- The enrichment message includes Buyer decision maker or Seller decision maker fields. In the following cases, the values in the Supervisor report are determined by ARM according to applicable rules and cannot be modified. If the post-trade file reports a transaction executed for the own account of the IF ('DEAL', the IF is the buyer or the seller) or a transaction executed on the account of an IF client ('AOTC', the client is the buyer or the seller) and the Investment decision within firm field is populated with the SHORTCODE of an IF employee, then according to the rules the Buyer decision maker or Seller decision maker field:
 - must be void for a transaction executed for the own account of the IF,
 - must be populated with the IF's LEI for a transaction executed on the account of an IF client.

2. (Effective) reporting of client data before receipt of transaction details from the market



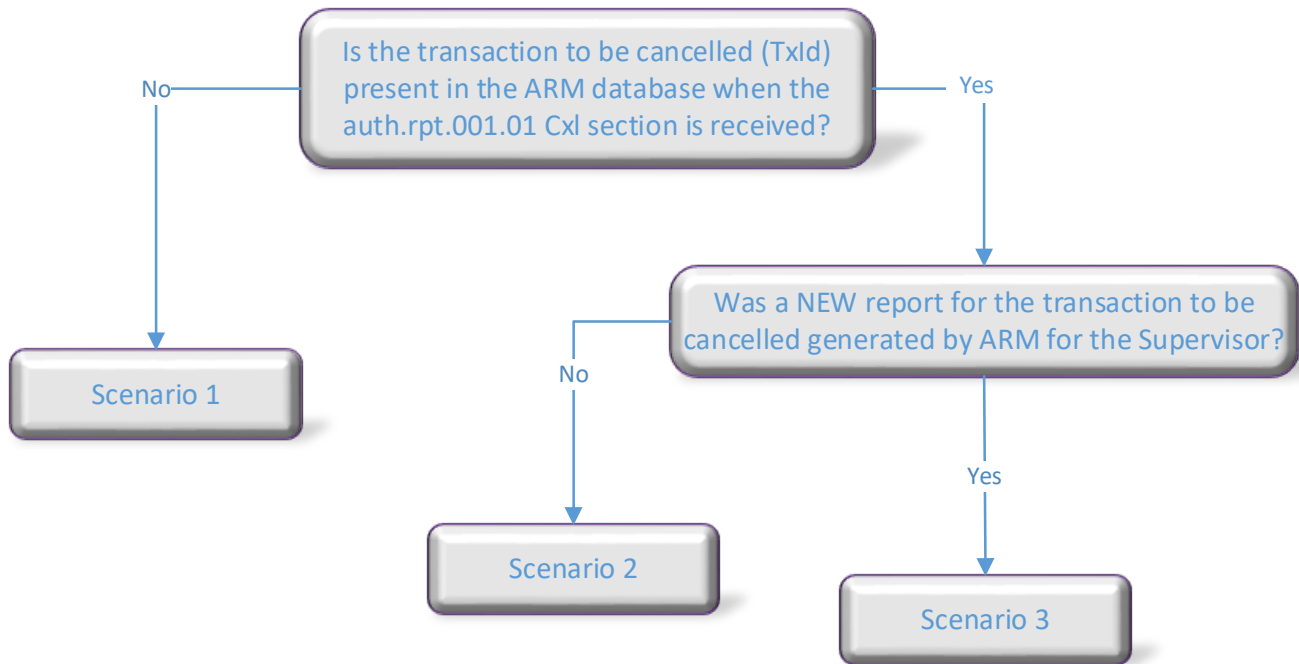
3. Reporting of client data after receipt of transaction details from the market



IX. Cancellation processing scenarios

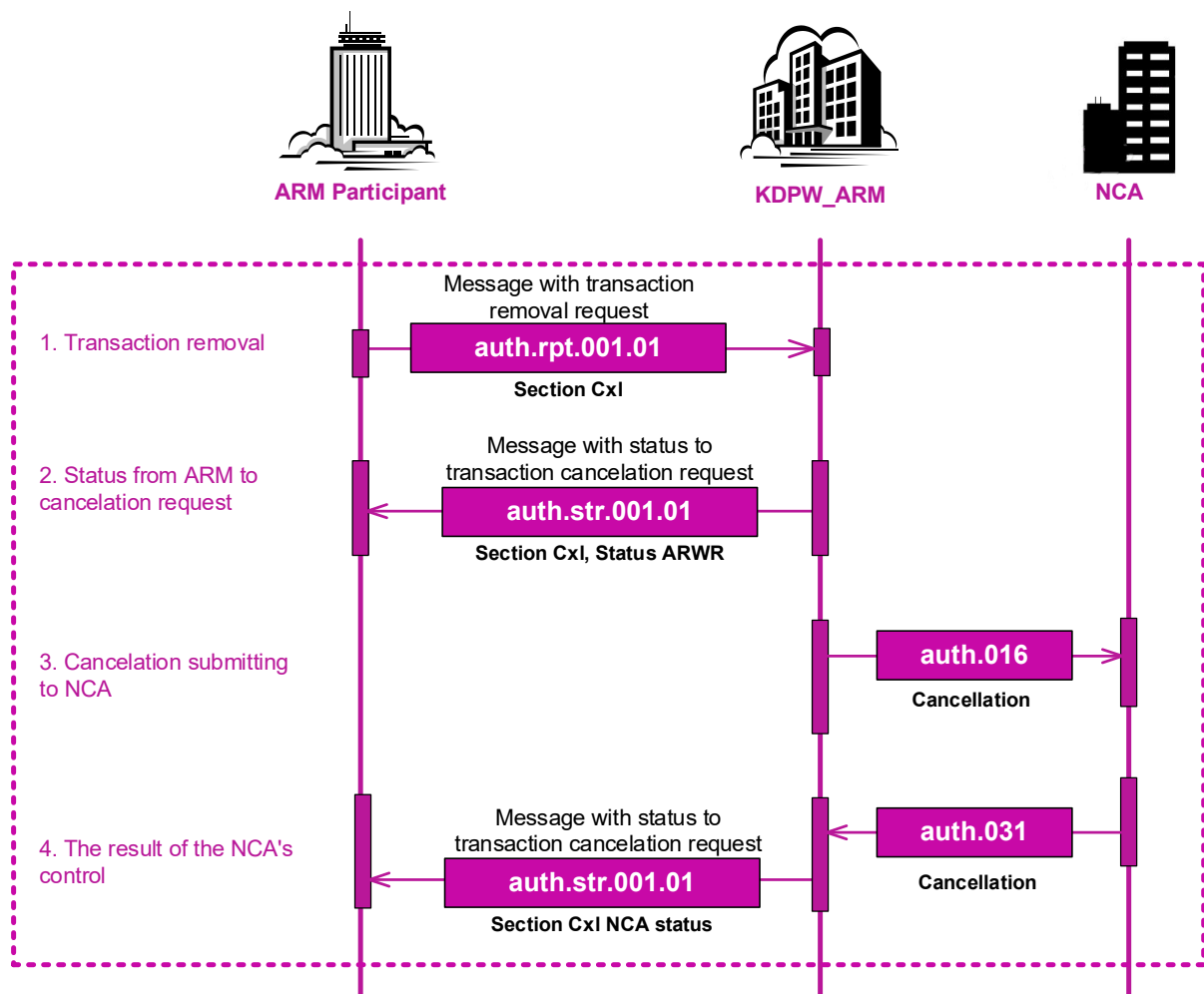
1. Processing cancellations in direct reporting and simplified reporting

If the cancellation report has the right format, the following processing scenarios are possible. The scenarios depend on the presence and the status of the transaction in the ARM database. The dependence is presented below.



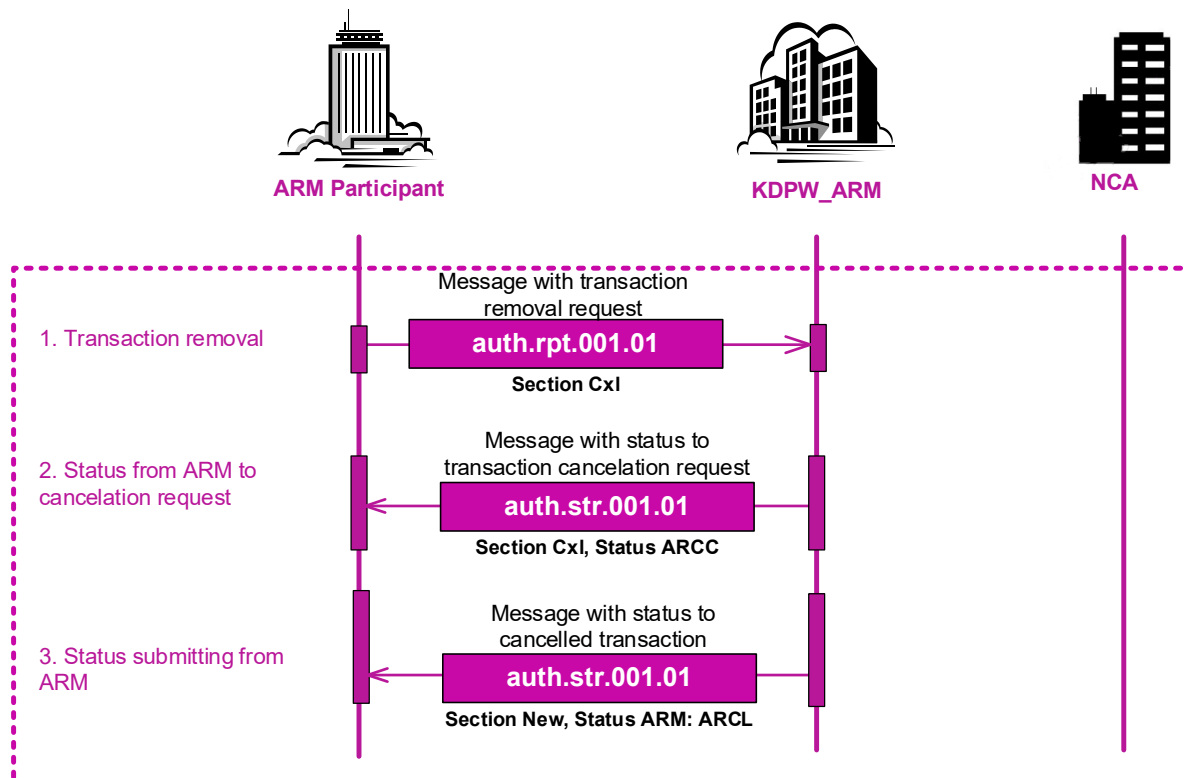
Scenario C1.

No transaction with the reported **TxId** is present in the ARM database. ARM replies to the Participant's cancellation report with a notification that no such transaction is present in the ARM database and sends a cancellation report to the Supervisor.



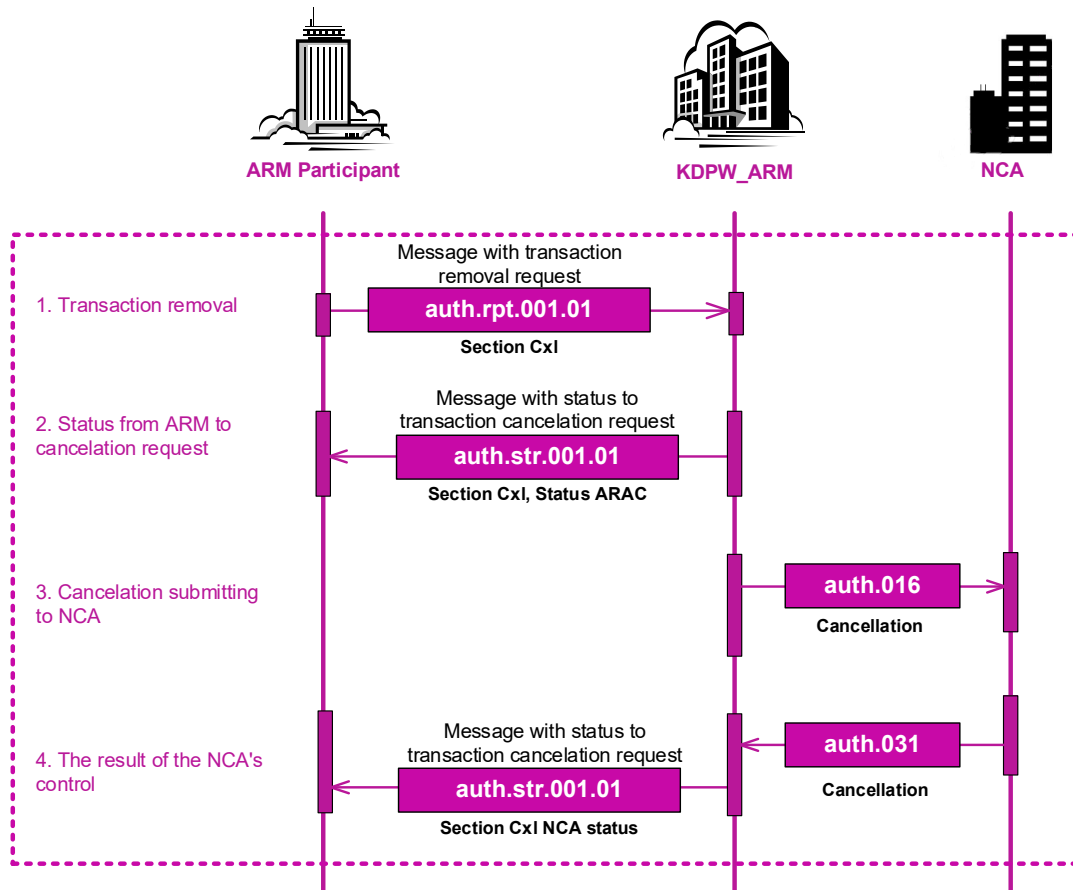
Scenario C2.

A transaction with the reported **TxId** is present in the ARM database, but has not been reported to the Supervisor. The transaction status in the ARM database is ARAC/ARRW/ARWR. ARM processes the cancellation report and reports the status to the participant. In addition, ARM notifies the participant of the change of the transaction status from ARM to ARCL. No report (transaction report or cancellation report) is sent to the Supervisor.



Scenario C3

A transaction with the reported **TxId** is present in the ARM database and has been reported to the Supervisor. ARM sends the cancellation report to the Supervisor. When ARM receives feedback, ARM sends the Supervisor status of the cancellation report to the Participant.



X. Processing enrichment reports auth.enr.001.01

1. Processing enrichment reports

The message is only used in simplified reporting where data provided from the market to ARM must be enriched.

The message is processed as follows:

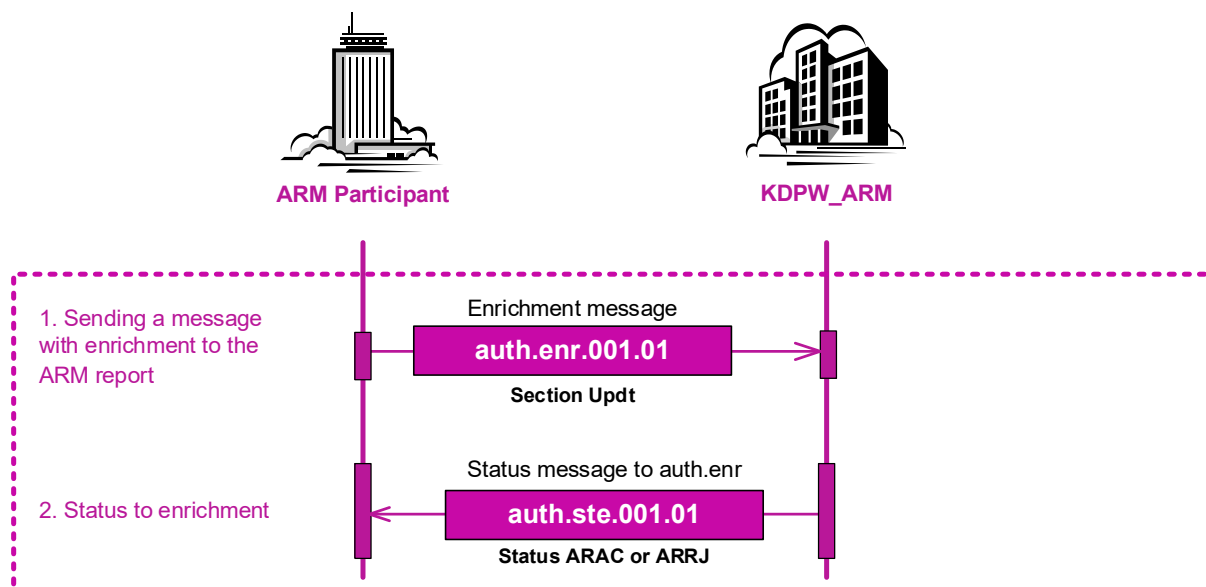
- Enrichment message auth.ent.001.01 is processed only in simplified reporting (from the market).
- Enrichment of transactions is only possible if the Participant sends the enrichment message before sending the transaction from the market to the Supervisor.
- An enrichment message may be sent to ARM immediately when the transaction is executed on the market. If the transaction from the market is not yet present in the ARM database when the enrichment message is received, pending status is reported for the enrichment message. KDPW checks the enrichment message once again after the transaction details are received from the market.
- auth.enr.001.01 is only accepted if a transaction with the reported TxId is present in the ARM database from post-trade files from the market.
- If auth.enr.001.01 includes a SHORTCODE with the client's data, the message is only accepted if the SHORTCODE is present in the ARM database when auth.enr.001.01 is received.
- auth.enr.001.01 includes no modification or cancellation sections. However, it may be sent more than once for any transaction. When building the Supervisor report, ARM takes data from the most recent enrichment message.
- The cut-off time for the acceptance of an enrichment message is the time of generating the Supervisor report, which is confirmed in auth.016 sent from ARM to the Participant.
- ARM validation ensures that the acceptance of auth.enr.001.01 by ARM does not prevent the generation of the Supervisor report.
- The acceptance of auth.enr.001.01 is tantamount to the use of the reported data in order to build a transaction report.
- When sending auth.enr.001.01 more than once for any transaction (e.g., to correct reported details), the complete data enriching the transaction need to be included every time. In the absence of any message section (all sections are optional), the values previously reported in such section in a previous enrichment message will be erased.
- auth.enr.001.01 statuses:
 - ARAC - accepted;
 - ARRJ - rejected;
 - ARPD - pending.

2. Message flows

Two message flow scenarios are possible depending on when auth.enr.001 is reported.

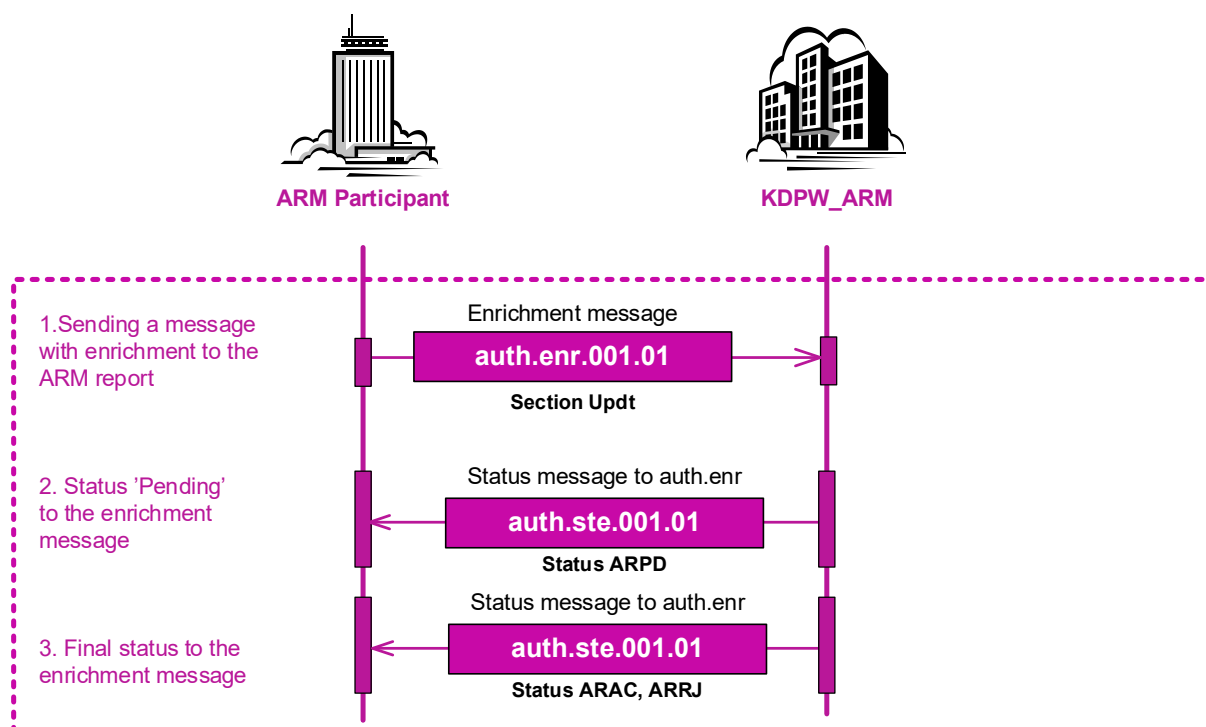
Scenario E1

The auth.enr.001.01 message has been delivered to ARM after ARM has received the transaction data from the market or has been sent prior to receiving the data from the market. The ARM in the feedback message indicates that the auth.enr.001.01 message has been validated if it is factually correct. If errors are detected in the message, a rejection feedback is sent.



Scenario E2

The message auth.enr.001.01 was delivered to ARM before ARM received the transaction data from the market. The status message transmits the status Pending - reason: no transaction in ARM databases. When the transaction data is received, the message auth.enr.001.01 will be re-validated. As a result of the re-validation, a final status will be sent to the Participant.



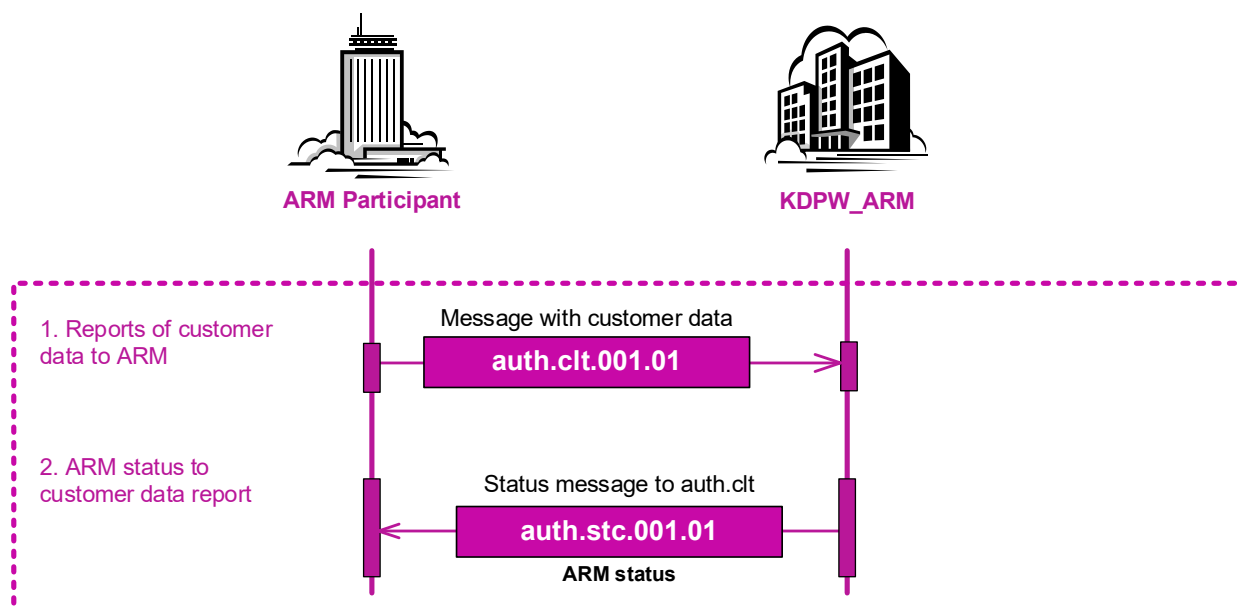
XI. Processing personal data reports auth.clt.001.01

1. Processing reports

Personal data reports are processed by ARM independently of other reports, i.e., they require no SHORTCODE to be present in transaction details. Messages are processed as follows:

- ARM participants may at any time (in particular, before the transaction is executed):
 - Enter a SHORTCODE into the ARM database, i.e., report the client's data for a SHORTCODE – section **New**;
 - Modify reported data of a SHORTCODE – section **Updt**;
 - Remove SHORTCODE data from the database – section **Cxl**. If a SHORTCODE is removed, no data will be available for the SHORTCODE in the database.
- The Supervisor report is built according to the status as at the time of its generation.
- If SHORTCODE data are removed from the ARM database (auth.clt message section Cxl), the SHORTCODE may be re-entered by reporting auth.clt.001.01 with section New.
- auth.clt.001.01 statuses:
 - ARAC - accepted;
 - ARRJ - rejected;
 - ARPD (initially not in use)

2. Message flows



XII. Processing messages having the wrong structure.

Messages inconsistent with XSD of messages supported by the ARM service in the relationship between KDPW_ARM and the Participants are rejected by the system. The feedback report is `admi.err.001.01`. In practice, `admi.err` is reported to Participants if:

- the Participant sends a message to KDPW_ARM which is supported by the service, but its structure is inconsistent with the applicable format;
- the Participant sends a message to KDPW_ARM which is not supported by the service.

