

dentsu TRACKING

Dentsu Aegis Network

EU SECONDARY REPOSITORY COMMUNICATION REGARDING 1.4 ROLL OUT

This document details the EU Secondary and Router 1.4 rollout process including the impact for the economic operators.

Summary of changes

Date	Version	Done by	Comment
05.02.2020	1.0	Dentsu Aegis Network	

Publication

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05.02.2020	1.0	

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1 Introduction

1.1 Purpose

This document describes the overall implementation of the sequence validation controls described in the List of Specification and Data Dictionary 1.4.

The main purpose of the document is to assist economic operators in preparing the practical aspects of their internal procedures and practices in order to successfully roll out the implementation of the sequence validation controls described in the List of Specification and Data Dictionary 1.4.

1.2 Audience

This document is intended for Economic Operators.



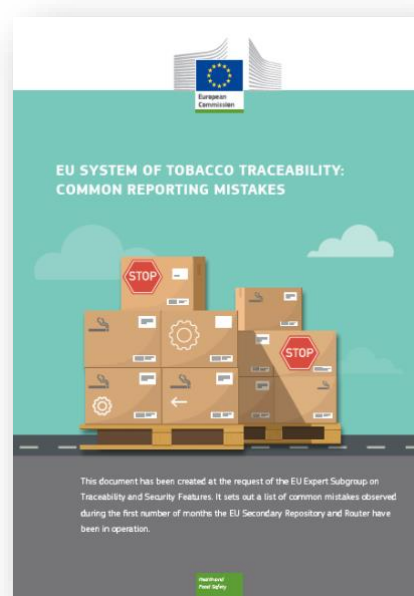
2 Context

2.1 Common Mistakes

After three months of operation, the European Commission reviewed and analyzed the data collected in the EU Secondary repositories and identified several non-conformities due to inaccurate reporting.

These non-conformities have been documented, explained and shared with the different Economic Operators.

- | | |
|---------------------------|---|
| Master Data | <ul style="list-style-type: none">• Economic operators, facilities, machines missing in the registries• Incomplete or missing addresses• Non-Romanised characters |
| Event Data | <ul style="list-style-type: none">• Wrong UI codes capture• Human readable UI mismatch• Wrong TP_ID• Event Time “yyMMddHH” format |
| Event Transmission | <ul style="list-style-type: none">• Events not reported• Multiple Aggregation Events on the same UI• Incorrect Event Sequence transmission |



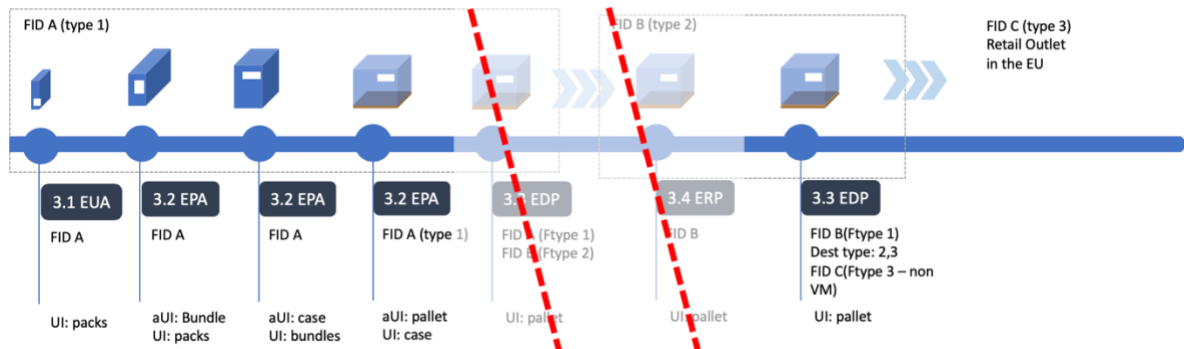
Reference:

https://ec.europa.eu/health/sites/health/files/tobacco/docs/tt_common_reportin_g_mistakes_en.pdf

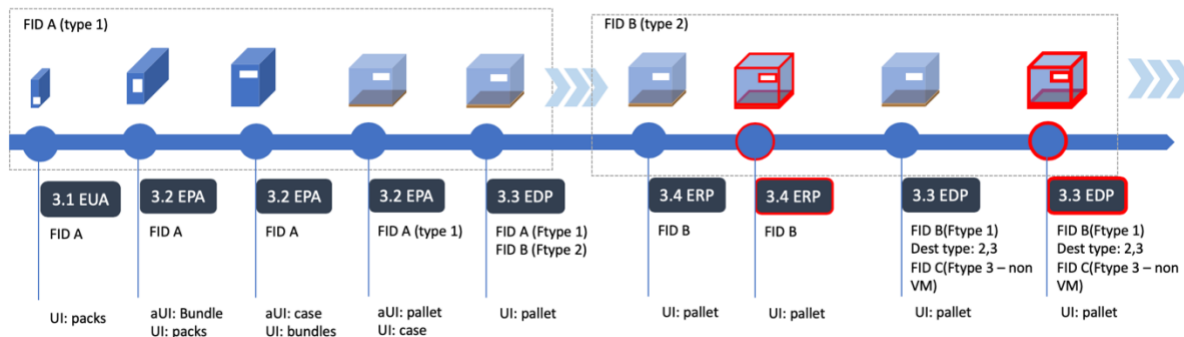
2.1.1 Common Scenarios

On the event level the most common issues are:

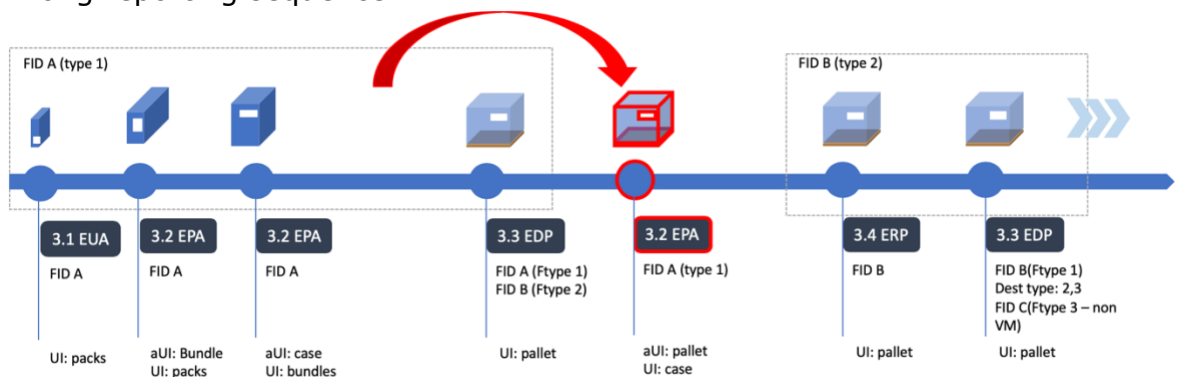
Event not reported



Duplication of event reporting



Wrong reporting sequence



2.2 Data Dictionary and List of Specifications version 1.4

After the first months of operation, the European Commission requested further technical enhancement of the system in order to implement technical controls that help Economic Operators comply with the implementing regulation. The update of the Data Dictionary and the List of Specifications only enhance the technical controls without changing the requirements in terms of reporting as described in the implementing regulation.

From a technical point of view, this technical sequence validation requires an update of the API.

- Message Time (time long) for sequence validation
- Message Size limit – allowing the online validation under the 60 Sec SLA
- Address Fields update (Transactional documents)
- Error Codes List update

Reference : <https://eu-secondary.dentsuaegistracking.com/eu-secondary-data-dictionary/>

2.3 Data Dictionary and List of Specifications 1.4.2

For the sake of clarity, and by official request from the IT providers, an amendment of the List of Specifications 1.4 has been issued

NOTE: this update is informational, it is a clerical update for clarification only. It summarizes the technical implication of the Sequence Validation Controls described in the List of Specifications 1.4 provided on October 17th 2019. All of the technical implications such as the implicit disaggregation controls and the Sequence Validation Grace Period have been discussed in several Questions and Answers documents and shared previously with the stakeholders.

This clerical update clarifies the following elements that are directly linked to the sequence validation implementation.

- Clarification on Implicit Disaggregation
- Clarification on Recall processing
- Clarification on the Sequence Validation Grace Period

Publication Date: Dec 20th, 2019

Reference : <https://eu-secondary.dentsuaegistracking.com/eu-secondary-data-dictionary/>

3 Sequence Validation

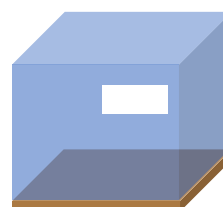
3.1 Overview

The sequence validation is described in the List of Specifications 1.4.2.

3.2 Principles

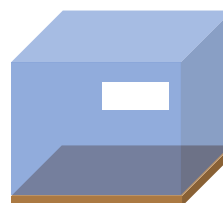
3.2.1 Principle 1

Principle 1: All aggregation events are full aggregations. Once the aUI is aggregated, a subsequent aggregation event on the same parent aUI should be rejected.



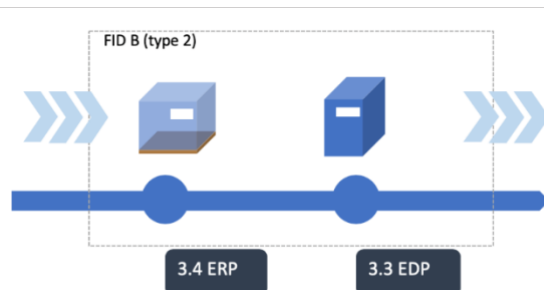
3.2.2 Principle 2

Principle 2: All disaggregation events are full disaggregations. Once the aUI is disaggregated, no movement should be reported on that aUI



3.2.3 Principle 3

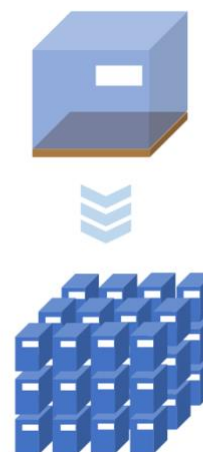
Principle 3: Implicit disaggregation. Disaggregation event reporting is mandatory only when the aUI is reused in a subsequent aggregation event (as a parent aUI). The implicit disaggregation is detected when at least one child UI is reported in an aggregation or product movement. The parent aUI of this child UI will be considered as disaggregated. In the case that the child UI is part of an aggregation hierarchy, all parent aUIs will be disaggregated.



3.2.4 Principle 4

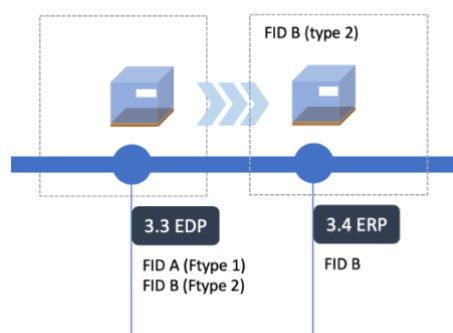
Principle 4: All disaggregations must be performed at a location. No Disaggregation is allowed during the transport.

Note: Arrival of type Return and Delivery carried out with a vending van to retail outlet could generate implicit disaggregations.



3.2.5 Principle 5

Principle 5: The reporting on the Arrival should be done on the same UI that has been reported during the Dispatch/Transloading process. This is a consequence of principle 4. This means that an Arrival Event that contains child UI of UI reported during the Dispatch/Transloading Event will be rejected. The same UI must be reported.



3.3 Transaction Events

Transactional events can be transmitted and recalled at any time. These events are not impacting the location of the UI and therefore the sequence validation.

3.4 Recall

Additional validation is required in order to check that for the recalled message, all the UI have not participated in any subsequent (2.x, 3.x) event(s). This validation is required in order to ensure state accuracy. Only the recall of the **last event** for **each UI** is authorized.

3.5 Grace Period

3.5.1 Rational

For the Economic Operators (Manufacturers, Importers, distributors), the implementation of the sequence validation is an important technical upgrade. In order to allow Economic operators to finetune their systems, a sequence validation grace period is defined.

3.5.2 UI Processing

During the sequence validation grace period, If the UI doesn't pass the sequence validation, it will still be accepted, and the message processed.

Because the sequence validation is not respected, the processing system (Primary repository or Router) will not be able to maintain an accurate state for that specific UI. The UI will be identified, and further events related to this UI will be accepted.

3.5.3 Grace Period warnings

During the Grace Period, the Router and Primary repositories will return Warning (http status 299) instead of Error (http status 400).

3.6 UIs manufactured/aggregated Pre April 1st

For UIs that have been issued (registered/applied), operated and/or aggregated before the end of the Sequence Validation Grace Period, the 1.4.2 validations will not apply as those might contain non-conform information.

This means that the Grace Period WARNING messages will be returned 1st of April onwards to these UIs.

For upUIs and aUIs which enter the repositories system 1st of April onwards, the 1.4.2 sequence validations will apply with 400 ERRORS (no 299 WARNINGS).

If a message contains both UIs created from before 1st of April and UIs created 1st of April onwards, the validations will be applied on a UI basis, where pre 1st of April UIs will return WARNINGS for sequence validation violations and post 1st of April UIs will return ERRORS for sequence validation violations.

3.7 End of TRANSITION PERIOD

As a reminder we highlight that the TRANSITION PERIOD will end on the 20th of May 2020.

The implication of this is that the current validations that return a TRANSITION WARNING message will switch to a 400 ERROR, therefore all non-existent UIs (upUIs / aUIs) in the repository system will fail the validations on the reported events.

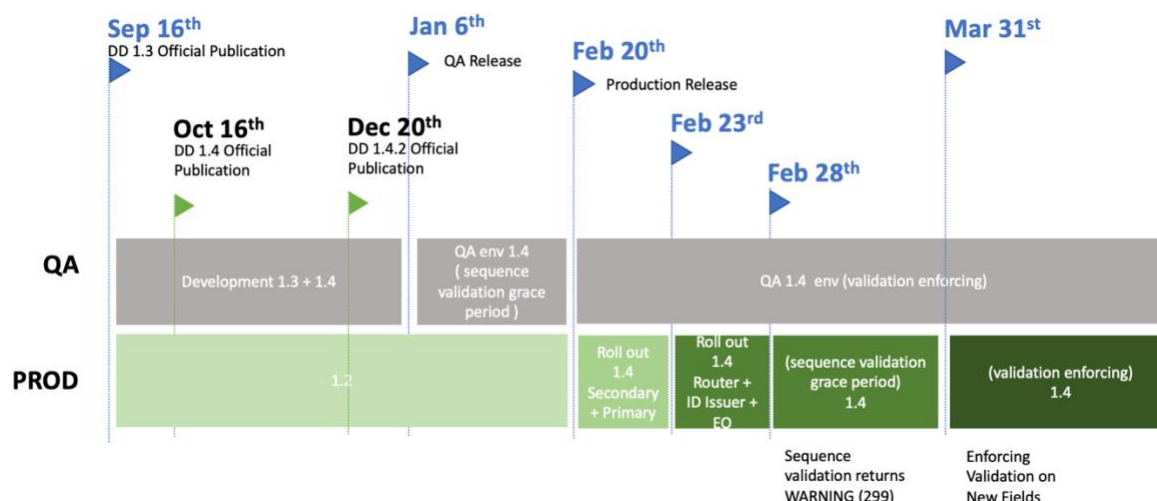
4 Rollout Phases

4.1 Phased rollout

In order to reduce technical risks during the rollout process, a phased approach to the overall rollout of the system has been adopted.

- **Phase 1:** Secondary repository and Primary in Compatibility mode (supporting version 1.2 and 1.4 API.) This is possible due to the incremental API design approach. Version 1.4 only added a handful of new fields to the existing 1.2 API.
- **Phase 2:** ID Issuer and Distribution system rollout. Once the core network (Router, Primary and Secondary repositories) has been deployed, the ID Issuer and Distribution system can transmit version 1.4 messages

4.2 Overall Timeline



- Feb 20th to Feb 23rd, 2020: roll out of the Secondary repository and the Primary repositories
- Feb 24th to Feb 28th, 2020: roll out of the ID Issuers, Distributors and service providers
- Feb 29th to March 31st 2020: sequence validation grace period
- April 1st 2020: enforcement of the validation on the router and secondary repository

4.3 Step by step rollout

4.3.1 Step 1: Feb 20th, 2020 Secondary rollout

1.2	Feb 20 th	Feb 23 rd	Feb 28 th	Mar 31 st
1.2	out 1.4 Secondary ary + Primar	out 1.4 Router + ID Issuer	(sequence validation grace period) 1.4	(validation enforcing) 1.4

The EU Secondary will be updated with version 1.4 in compatibility mode. This release supports both messages of version 1.2 and the new 1.4 messages. The additional fields defined in the 1.4 specification are considered OPTIONAL.

The Router will be updated with version 1.4 error codes and warnings but will not accept the 1.4 optional field in order to protect the primary repositories.

The EU Secondary and Router implement the sequence validation GRACE PERIOD.

The EU Secondary and Router will return the updated error codes and warnings defined in the Data Dictionary and List of Specification version 1.4.2.

4.3.2 Step 2: Primary repositories rollout

1.2	Feb 20 th	Feb 23 rd	Feb 28 th	Mar 31 st
1.2	out 1.4 Secondary ary + Primar	out 1.4 Router + ID Issuer	(sequence validation grace period) 1.4	(validation enforcing) 1.4

Rollout of the primary repositories in compatibility mode. The primary should be able to support version 1.2 and version 1.4 messages.

4.3.3 Step 3: ID Issuers, Distribution rollout

1.2	out 1.4 Secondary + Primary	out 1.4 Router + ID Issuer	(sequence validation grace period) 1.4	(validation enforcing) 1.4
	Feb 20 th	Feb 24 th	Feb 28 th	Mar 31 st

Once the Primary repositories are deployed, the router will be able to forward the new 1.4 messages. At this point ID Issuers and Distribution systems should rollout the updates. During this roll out period, the Router and Primaries support both messages of version 1.2 and 1.4.

ID Issuer can start the update of the EU wide registry.

4.3.4 Step 4: Feb 28th Switch

1.2	1.4 Secondary +	1.4 Router + ID Issuer +	(sequence validation grace period) 1.4	(validation enforcing) 1.4
	Feb 20 th	Feb 23 rd	Feb 28 th	Mar 31 st

At the end of the rollout period, all systems should have been updated to version 1.4. The Router and Secondary repository will switch the validation of the new fields from optional to MANDATORY. This is the end of the compatibility mode. Only messages implementing the interfaces described in the List of Specifications and Data Dictionary 1.4.2 will be accepted.

At this stage the EU Secondary and Router continue to implement the sequence validation GRACE PERIOD.

4.3.5 Step 5: March 31st End of the Grace Period

1.2	1.4 Secondary +	1.4 Router + ID Issuer +	(sequence validation grace period) 1.4	(validation enforcing) 1.4
	Feb 20 th	Feb 23 rd	Feb 28 th	Mar 31 st

At the end of the Grace Period, the Primary repositories and Router will be updated in order to change the validation enforcement responses from WARNING to ERROR.

Important Note: The sequence validation will not be applied on the UI issued or aggregated prior to the end of the Grace Period.

5 Economic Operator Activities

5.1 System upgrade

5.1.1 Scope

The Economic Operator must ensure that the internal systems that connect to the Router or the Primary repositories implement the 1.4 API specifications.

API changes:

- Message Time (time long) for sequence validation
- Message Size limit
- Address Fields update (Transactional documents)
- Error Codes List update

The internal system should manage the errors and warning messages, providing the technical tools for the Economic Operator to have visibility on the Primary repository and Router response messages.

5.1.2 Manufacturers / Importers

Manufacturers and importers must ensure the coordination between internal systems and primary repository upgrade process. The upgrade process should be performed during the rollout window from Feb 20th to Feb 23rd.

5.1.3 Distributors / Service Providers

Distributors and Service Providers reporting events through the Router must perform the technical upgrade between Feb 24th and Feb 28th

5.2 Operational

5.2.1 Ensure accuracy of Master Data.

Master data must be accurate as described in the Implementing regulation.

It is important to note that with the enhanced controls, any inaccuracies in master data might lead to error validation on the subsequent reported events.

Sample of master data review

- Product Master Data (TPPN TPID)
- EOID FID MID configuration
- Address information

5.2.2 Update Operational Monitoring

During the Grace period it is recommended that Economic operators specifically update their monitoring processes of the Router or the Primary repositories. The monitoring should focus on the Warning or error responses. These responses might contain information pointing to technical issues. These warnings should be considered as critical as they might generate validation errors once the grace period ends.

Implement Operational Monitoring of updated error codes and warnings

- Grace Period Warning (299)
- Transition Warning (299)