Anonymize energy data

Based on IEC 62559-2 edition 1
Generated from UML Use Case Repository with Modsarus® (EDF R&D Tool)

1. Description of the use case

1. Name of use case

Use case identification		
ID	***Area(s)/Domain(s)/Zone(s)***	***Name of use case***
	Access to data,Market for flexibilities,Services related to end customers	Anonymize energy data

2. Version management

Version management				
Version No.	***Date***	***Name of author(s)***	***Changes***	***Approval status***
1	2018-04-12	Kalle Kukk (Elering)		
2	2018-10-03	Ricardo Jover (EDF)	UML model	
3	2018-10-04	Eric Suignard (EDF)	Version post WP5&9 physical meeting in Tallinn	
4	2018-10-11	Ricardo Jover (EDF)	Assumptions concerning users of the Application	
5	2019-05-07	Eric Suignard (EDF)	WP6-7-8 demos alignment and miscellaneous changes	
6	2020-06-16	Eric Suignard (EDF)	innogy's and Elering's review	

3. Scope and objectives of use case

Scope and objectives of use case	
Scope	Anonymization of personally identifiable data.
Objective(s)	Making private data available to other parties without authorization (permission) using anonymization techniques
Related business case(s)	

4. Narrative of Use Case

Narrative of use case
Short description
Private data without identifying the person behind may be useful for some applications and services – e.g. for academic studies, benchmarking, reporting, etc. Using techniques to anonymize data makes access to data easier for these parties as no consent is needed from every individual consumer.
Complete description
Summary of use case • **Anonymize private data** Description: ▪ Anonymizes data Description:

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- Forwards anonymized data
  Description:
- Forwards anonymized data
  Description:
- Forwards anonymized data request
  Description:
- Forwards anonymized data request
  Description:
- Requests anonymized data
  Description:
- Sends anonymized data
  Description:

5. Key performance indicators (KPI)

6. Use case conditions

	Use case conditions
	Assumptions
1	Application and Data Hub have a prior agreement to exchange anonymized data or there is legal requirement for Data Hub to make certain anonymized data available
2	Same anonymization technique could be applied for data sets in different countries to ensure the comparability in case requested by a party.
3	Some roles like Energy Service Provider and Data user can use the Application to request anonymized data
	Prerequisites
1	Standard anonymization technique
2	Anonymization tool is necessary in this use case
3	Anonymization technique used shall not enable the identification of the individual behind the data
4	The use of data for anonymized purposes needs to comply with GDPR (General Data Protection Regulation) and CEP (Clean Energy Package) requirements.

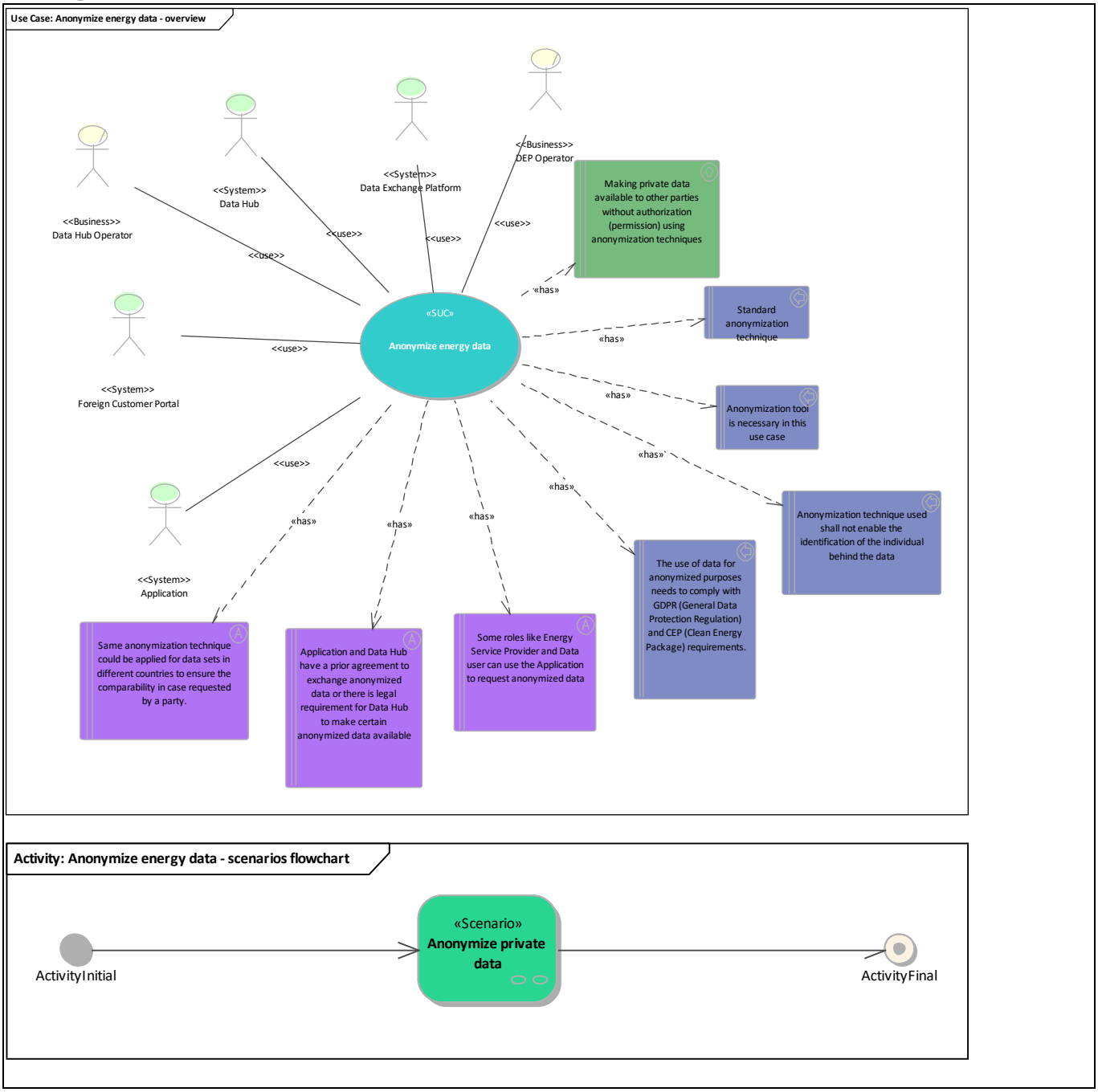
7. Further information to the use case for classification/mapping

Classification information
Relation to other use cases
Level of depth
Prioritisation
Generic, regional or national relation
Nature of the use case
SUC
Further keywords for classification

8. General remarks

2. Diagrams of use case

Diagram(s) of use case



3. Technical details

1. Actors

Actors			
Grouping (e.g. domains, zones)		***Group description***	
Actor name	***Actor type***	***Actor description***	***Further information specific to this use case***
Data Exchange Platform	System	Data exchange platform (DEP) is a communication platform the basic functionality of which is to secure data transfer (routing) from data providers (e.g. data hubs, flexibility service providers, TSOs, DSOs) to the data users (e.g. TSOs, DSOs, consumers, suppliers, energy service	

		providers). DEP stores data related to its services (e.g. cryptographic hash of the data requested). The DEP does not store core energy data (e.g. meter data, grid data, market data) while these data can be stored by data hubs. Several DEPs may exist in different countries and inside one country.	
Data Hub	System	Data Hub is an information system which main functionality is to store and make available measurements (e.g. meter data, operational data) and associated master data. Data Hubs are not necessarily centralized in a country or in a region.	
Foreign Customer Portal	System	Customer Portal for another country. Can also mean a separate portal in the same country.	
Application	System	Any kind of system connected to a Data Exchange Platform and used by a market participant who wishes to receive data.	
Data Hub Operator	Business	Data hub operator owns and operates an information system which main functionality is to store and make available electricity (also gas, heat) metering data and associated master data. Can be : • Grid Data Hub Operator in the sphere of a System Operator • Market Data Hub Operator in the sphere of a Market Operator • Meter Data Hub Operator in the sphere of a Metered Data Operator • Sub-meter Data Hub Operator in the sphere of an Energy Service Provider	
DEP Operator	Business	Data exchange platform operator owns and operates a communication system which basic functionality is data transfer.	

2. References

4. Step by step analysis of use case

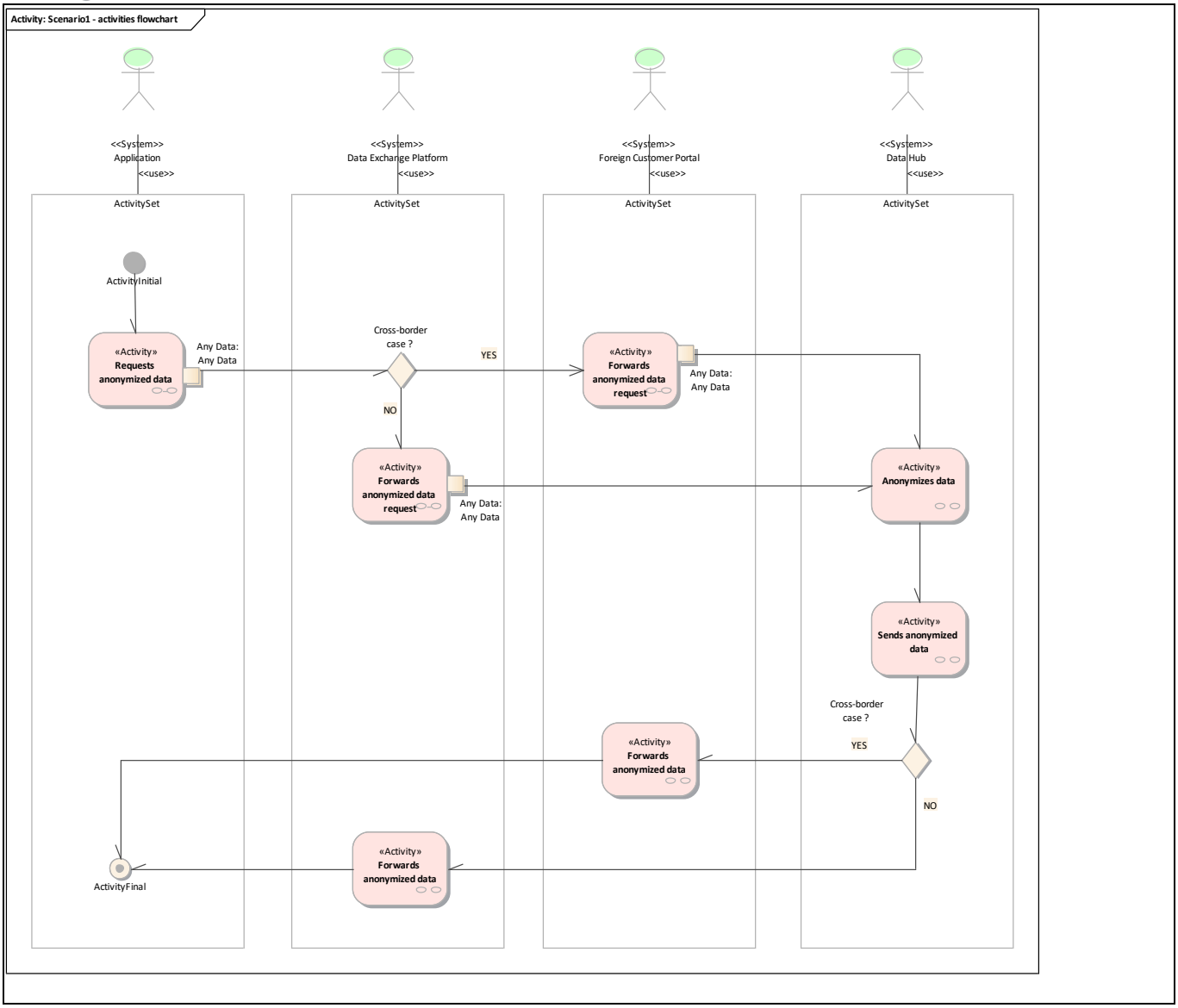
1. Overview of scenarios

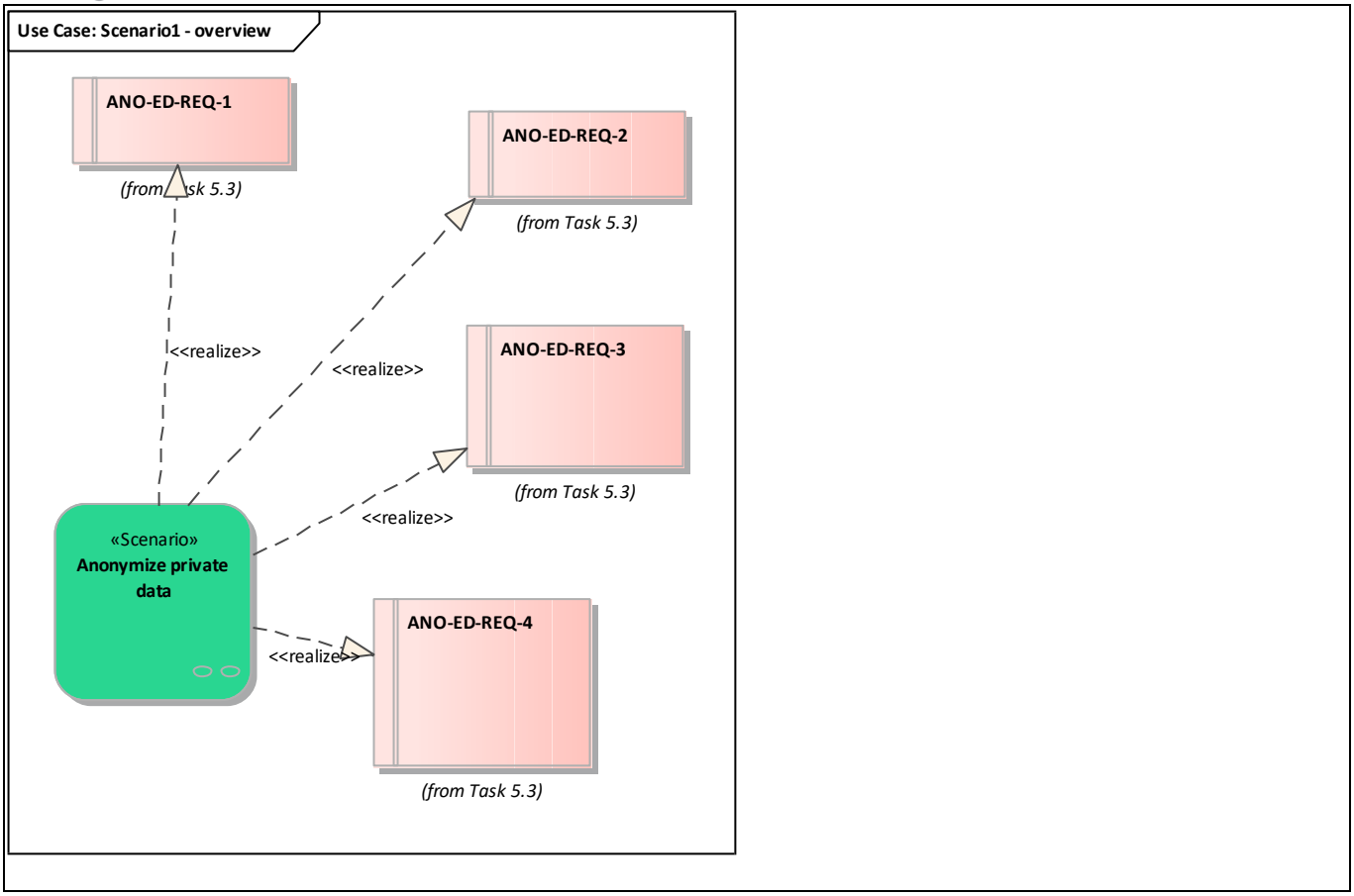
Scenario conditions						
No.	***Scenario name***	***Scenario description***	***Primary actor***	***Triggering event***	***Pre-condition***	***Post-condition***
1	Anonymize private data					

2. Steps - Scenarios

- **Anonymize private data**

Requirement list (refer to "Requirement" section for more information)	
Requirement R-ID	***Requirement name***
Cat1.Req1	ANO-ED-REQ-3
Cat1.Req2	ANO-ED-REQ-4
Cat1.Req3	ANO-ED-REQ-1
Cat1.Req4	ANO-ED-REQ-2


Activity: Scenario1 - activities flowchart
<<System>>
Application
<<use>>
<<System>>
Data Exchange Platform
<<use>>
<<System>>
Foreign Customer Portal
<<use>>
<<System>>
Data Hub
<<use>>
ActivitySet
ActivitySet
ActivitySet
ActivitySet
ActivityInitial
«Activity»
Requests anonymized data
Any Data:
Any Data
Cross-border case ?
YES
NO
«Activity»
Forwards anonymized data request
Any Data:
Any Data
«Activity»
Forwards anonymized data request
Any Data:
Any Data
«Activity»
Anonymizes data
«Activity»
Sends anonymized data
Cross-border case ?
YES
NO
«Activity»
Forwards anonymized data
«Activity»
Forwards anonymized data
ActivityFinal



Scenario step by step analysis

Scenario								
Scenario name	Anonymize private data							
Step No	**Event**	**Name of process/activity**	**Description of process/activity**	**Service**	**Information producer (actor)**	**Information receiver (actor)**	**Information exchanged (IDs)**	**Requirement, R-IDs**
1.1		Anonymizes data			Data Hub			
1.2		Forwards anonymized data			Foreign Customer Portal			
1.3		Forwards anonymized data			Data Exchange Platform			
1.4		Forwards anonymized data request			Foreign Customer Portal	Data Hub	Info1-Any Data	
1.5		Forwards anonymized data request			Data Exchange Platform	Data Hub	Info1-Any Data	
1.6		Requests anonymized data			Application	Foreign Customer Portal, Data Exchange Platform	Info1-Any Data	
1.7		Sends anonymized data			Data Hub			

- 1.4. Forwards anonymized data request

Business section: Anonymize private data/Forwards anonymized data request

Information sent:

Business object	*Instance name*	*Instance description*
Any Data	Any Data	

- 1.5. Forwards anonymized data request

Business section: Anonymize private data/Forwards anonymized data request

Information sent:

Business object	*Instance name*	*Instance description*
Any Data	Any Data	

- 1.6. Requests anonymized data

Business section: Anonymize private data/Requests anonymized data

Information sent:

Business object	*Instance name*	*Instance description*
Any Data	Any Data	

5. Information exchanged

Information exchanged			
Information exchanged, ID	*Name of information*	*Description of information exchanged*	*Requirement, R-IDs*
Info1	Any Data		

6. Requirements (optional)

Requirements (optional)		
Categories ID	*Category name for requirements*	*Category description*
Cat1	Task 5.3	Requirements integrated from Task 5.3.
Requirement R-ID	*Requirement name*	*Requirement description*
Req1	ANO-ED-REQ-3	Data source (e.g. meter data hub) ability to anonymize data
Req2	ANO-ED-REQ-4	DEP ability to forward anonymized data from a data source to a data user
Req3	ANO-ED-REQ-1	Standard rules to anonymize data not to enable the identification of persons behind data
Req4	ANO-ED-REQ-2	Standard rules to anonymize data in order to ensure the comparability of anonymized data sets

7. Common terms and definitions

8. Custom information (optional)