

Manage access permissions

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
	Market for flexibilities,Operational planning and forecasting,Access to data,Balance management,Services related to end customers	Manage access permissions

2. Version management

Version management				
Version No.	Date	Name of author(s)	Changes	Approval status
1	2018-04-06	Christian Radl (Transnet)		
2	2018-06-01	Kalle Kuk (Elering), Georg Rute (Elering) ...		
3	2018-07-17	Mandimby Ranaivo R. (AKKA), Florentin Dam (AKKA)		
4	2018-08-02	Eric Suignard (EDF)		
5	2018-09-05	Mandimby Ranaivo R. (AKKA)		
6	2018-09-21	Eric Suignard (EDF)		
7	2018-10-04	Eric Suignard (EDF)	Version post WP5&9 physical meeting in Tallinn	
8	2018-10-17	Eric Suignard (EDF)	Version reviewed by WP5&9 partners	
9	2019-05-07	Eric Suignard (EDF)	WP6-7-8 demos alignment and miscellaneous changes	
10	2020-06-16	Eric Suignard (EDF)	innogy's and Elering's review	
11	2020-08-05	Eric Suignard (EDF)	'Authorization Grant' Business Object identical to 'Customer Consent'.	

3. Scope and objectives of use case

Scope and objectives of use case	
Scope	Giving authorization by data owners (e.g. consumers) to other parties interested in using this data.
Objective(s)	Facilitating exchange of personal and other sensitive data as well as associated energy services (incl. across country borders).
Related business case(s)	

4. Narrative of Use Case

Narrative of use case
Short description

The party who is the data owner (e.g. electricity consumer is the owner of its consumption data) can authorize any application to have access to its data. Cross-border acknowledgement of authorizations shall be enabled.

Complete description

Summary of use case

- The Data Owner gives authorization directly

Description:

- Via the Customer Portal and the Data Exchange Platform (DEP), any data owner (e.g. electricity consumer is the owner of its consumption data) can authorize any application (incl. from other countries) to have access to its data. A data owner can select the available applications from the list of service providers (see SUC Provide list of suppliers and ESCOs).
- In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal.
- The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. from other countries).

An example for this scenario would be when a customer looks for a new electricity supplier or service provider (incl. aggregator), and, therefore, makes his data accessible.

- Acknowledge customer consent
Description: Optional
- Acknowledge customer consent
Description:
- Choose application and data object from the list
Description: The data owner can select the available applications in the list of service providers (see SUC Provide list of suppliers and ESCOs) and the available data objects.
- Create customer consent
Description:
- Create customer consent
Description:
- Create customer consent
Description:
- Grant customer consent
Description:
- Notify customer consent
Description:
- Notify customer consent
Description:
- Notify customer consent
Description:
- Notify customer consent
Description:
- Present list of applications and list of data objects
Description:

- The application requests for authorization

Description:

- An application sends request for authorization in order to access the data of a data owner.
- In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal.
- The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. in other countries).
- Notify authorization refusal
Description:
- Notify authorization request
Description:
- Notify customer consent
Description:
- Request authorization
Description:
- Notify authorization request
Description:
- Acknowledge authorization request
Description:
- Create authorization
Description:
- Notify customer consent
Description:
- Acknowledge customer consent
Description:
- Acknowledge customer consent
Description:
- Notify authorization refusal
Description:
- Acknowledge authorization refusal
Description:

5. Key performance indicators (KPI)

6. Use case conditions

Use case conditions	
Assumptions	
1	Focus on data that has a big sensitivity to its owner and therefore requires high level of confidentiality.
2	For system operation and market operation, data is needed from data generating roles which require high confidentiality (e.g. private households).
3	An authorization system has to be in place to enable cross border exchange of data.
Prerequisites	

1	DEPs and authorization systems of different countries and different authorization systems inside a country are able to acknowledge each other.
2	Data generating roles need to have IT tools that enable access to data (RT or ex-post) in real time.
3	Elaborating which roles are generating which type of data and which type of data is requested by which role: In order to create and provide information about authorization, the DEP have to know which roles are interested to exchange data. Thus an overview of all roles that are generating or requesting data must be available along with the type of data they intend to generate or request.

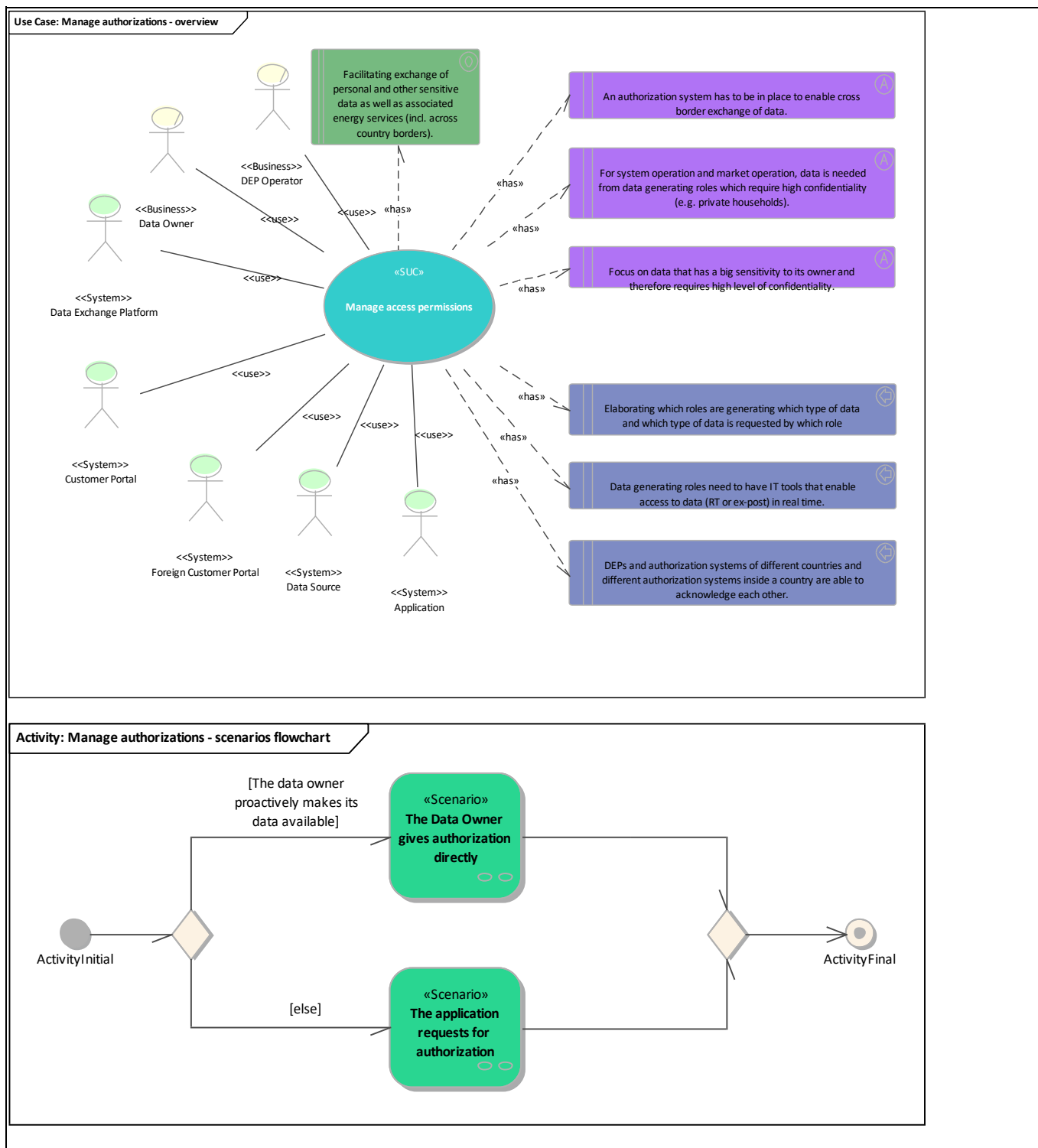
7. Further information to the use case for classification/mapping

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

8. General remarks

2. Diagrams of use case

<i>Diagram(s) of use case</i>



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 Source	System	Any kind of system used to store data (including Data Hub and Flexibility Platform).	
Data Owner	Business	Any person who owns data and can give authorization to other parties to access them. Can be, inter alia: <ul style="list-style-type: none"> Flexibility Services Provider Market Operator Consumer Generator 	
Application	System	Any kind of system connected to a Data Exchange Platform and used by a market participant who wishes to receive data.	
Customer Portal	System	Customer Portal manages data users' authentication, access permissions and data logs. Customer Portals store data related to its services (e.g. authentication information, representation rights, access permissions, data logs).	
Foreign Customer Portal	System	Customer Portal for another country. Can also mean a separate portal in the same country.	
DEP Operator	Business	Data exchange platform operator owns and operates a communication system which basic functionality is data transfer.	
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 exchange platform to create and forward authorization information.

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	The Data Owner gives authorization directly	<ul style="list-style-type: none"> Via the Customer Portal and the Data Exchange Platform (DEP), any data owner (e.g. electricity consumer is the owner of its consumption data) can authorize any application (incl. from other countries) to have access to its data. A data owner can select the available applications from the list of service providers (see SUC Provide list of suppliers and ESCOs). In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal. 				

		<ul style="list-style-type: none"> The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. from other countries). <p>An example for this scenario would be when a customer looks for a new electricity supplier or service provider (incl. aggregator), and, therefore, makes his data accessible.</p>				
2	The application requests for authorization	<ul style="list-style-type: none"> An application sends request for authorization in order to access the data of a data owner. In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal. 5. The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. in other countries). 				

1. Steps - Scenarios

▪ The Data Owner gives authorization directly

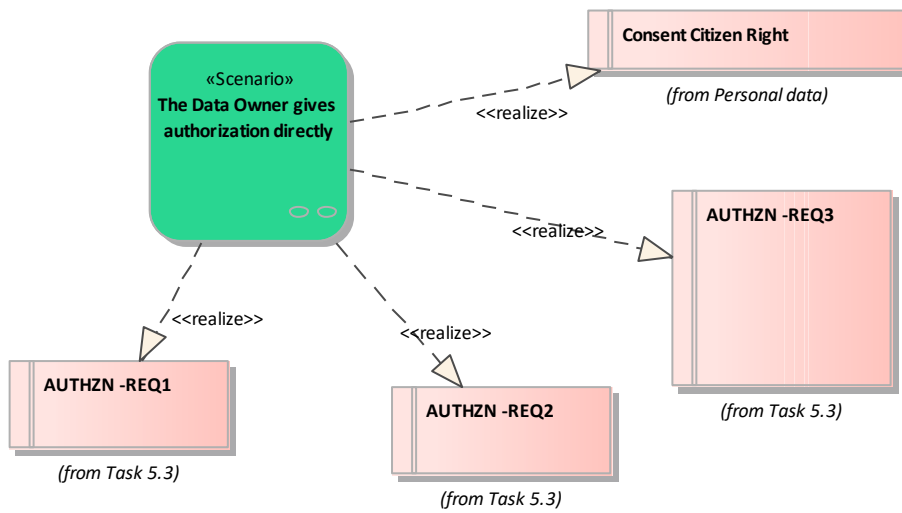
- Via the Customer Portal and the Data Exchange Platform (DEP), any data owner (e.g. electricity consumer is the owner of its consumption data) can authorize any application (incl. from other countries) to have access to its data. A data owner can select the available applications from the list of service providers (see SUC Provide list of suppliers and ESCOs).
- In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal.
- The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. from other countries).

An example for this scenario would be when a customer looks for a new electricity supplier or service provider (incl. aggregator), and, therefore, makes his data accessible.

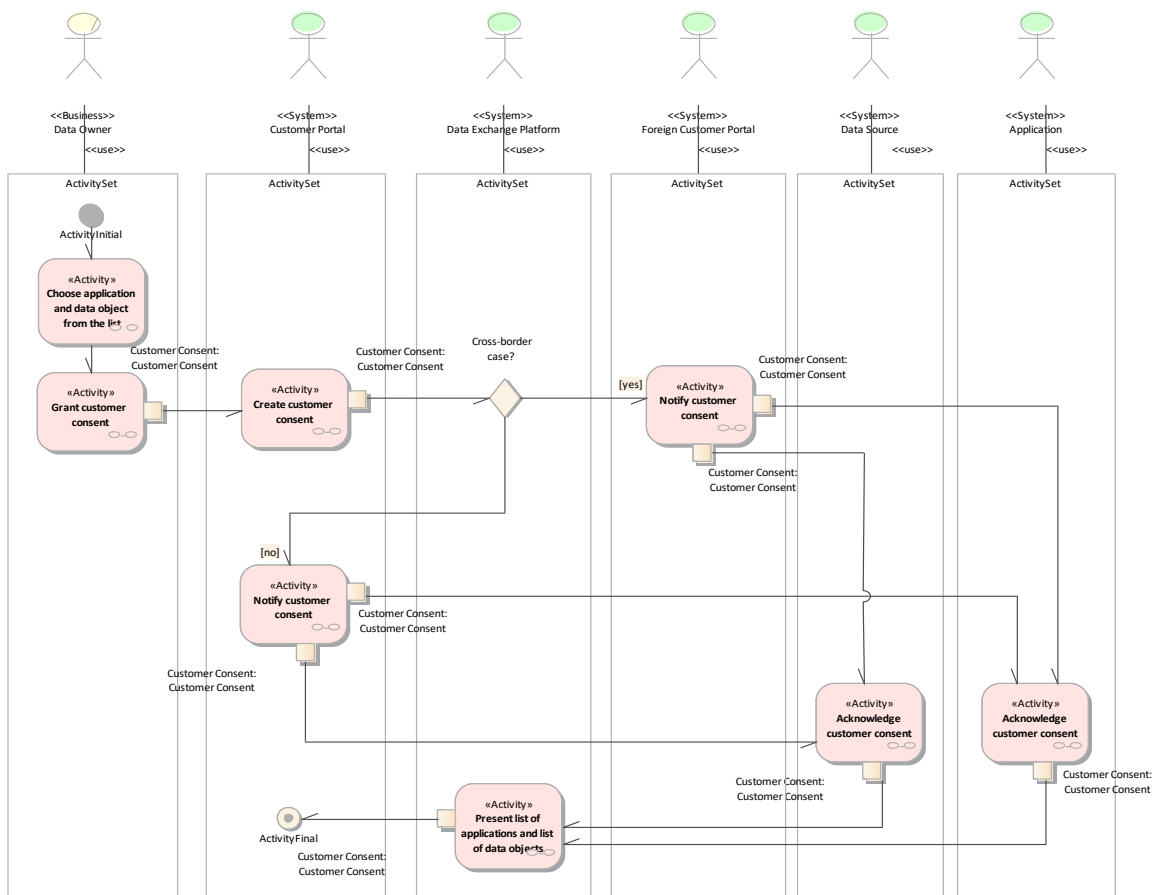
Requirement list (refer to "Requirement" section for more information)

Requirement R-ID	Requirement name
Cat1.Reg1	Consent Citizen Right
Cat2.Reg2	AUTHZN -REQ3
Cat2.Reg3	AUTHZN -REQ1
Cat2.Reg4	AUTHZN -REQ2

Use Case: Scenario1 - overview



Activity: The Data Owner gives authorization directly - activities flowchart



Scenario step by step analysis

Scenario

Scenario name		The Data Owner gives authorization directly						
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		Acknowledge customer consent	Optional		<u>Application</u>	<u>Data Exchange Platform</u>	Info1-Customer consent	
1.2		Acknowledge customer consent			<u>Data Source</u>	<u>Data Exchange Platform</u>	Info1-Customer consent	
1.3		Choose application and data object from the list	The data owner can select the available applications in the list of service providers (see SUC Provide list of suppliers and ESCOs) and the available data objects.		<u>Data Owner</u>			
1.4		Create customer consent			<u>Customer Portal</u>	<u>Customer Portal, Foreign Customer Portal</u>	Info1-Customer consent	
1.5		Create customer consent			<u>Customer Portal</u>	<u>Customer Portal</u>		
1.6		Create customer consent			<u>Customer Portal</u>			
1.7		Grant customer consent			<u>Data Owner</u>	<u>Customer Portal</u>	Info2-Customer consent	
1.8		Notify customer consent			<u>Customer Portal</u>	<u>Application</u>	Info1-Customer consent	
1.9		Notify customer consent			<u>Customer Portal</u>	<u>Data Source</u>	Info1-Customer consent	
1.10		Notify customer consent			<u>Foreign Customer Portal</u>	<u>Data Source</u>	Info1-Customer consent	
1.11		Notify customer consent			<u>Foreign Customer Portal</u>	<u>Application</u>	Info1-Customer consent	
1.12		Present list of applications and list of data objects			<u>Data Exchange Platform</u>	<u>Customer Portal</u>	Info1-Customer consent	

- 1.1. Acknowledge customer consent

Business section: The Data Owner gives authorization directly/Acknowledge customer consent

Optional

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.2. Acknowledge customer consent

Business section: The Data Owner gives authorization directly/Acknowledge customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.4. Create customer consent

Business section: The Data Owner gives authorization directly/Create customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.7. Grant customer consent

Business section: The Data Owner gives authorization directly/Grant customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.8. Notify customer consent

Business section: The Data Owner gives authorization directly/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.9. Notify customer consent

Business section: The Data Owner gives authorization directly/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer consent</u>	Customer consent	

- 1.10. Notify customer conseny

Business section: The Data Owner gives authorization directly/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
Customer consent	Customer consent	

- 1.11. Notify customer consent

Business section: The Data Owner gives authorization directly/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
Customer consent	Customer consent	

- 1.12. Present list of applications and list of data objects

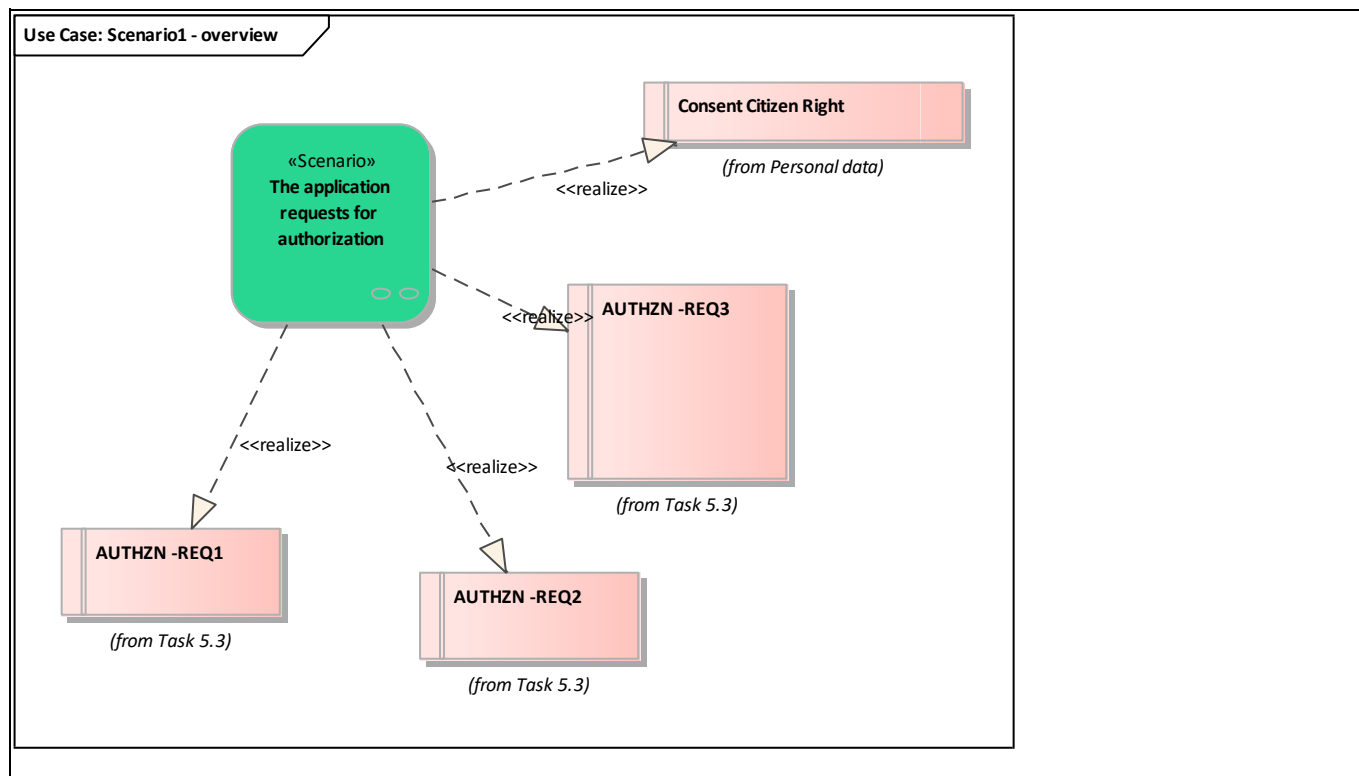
Business section: The Data Owner gives authorization directly/Present list of applications and list of data objects

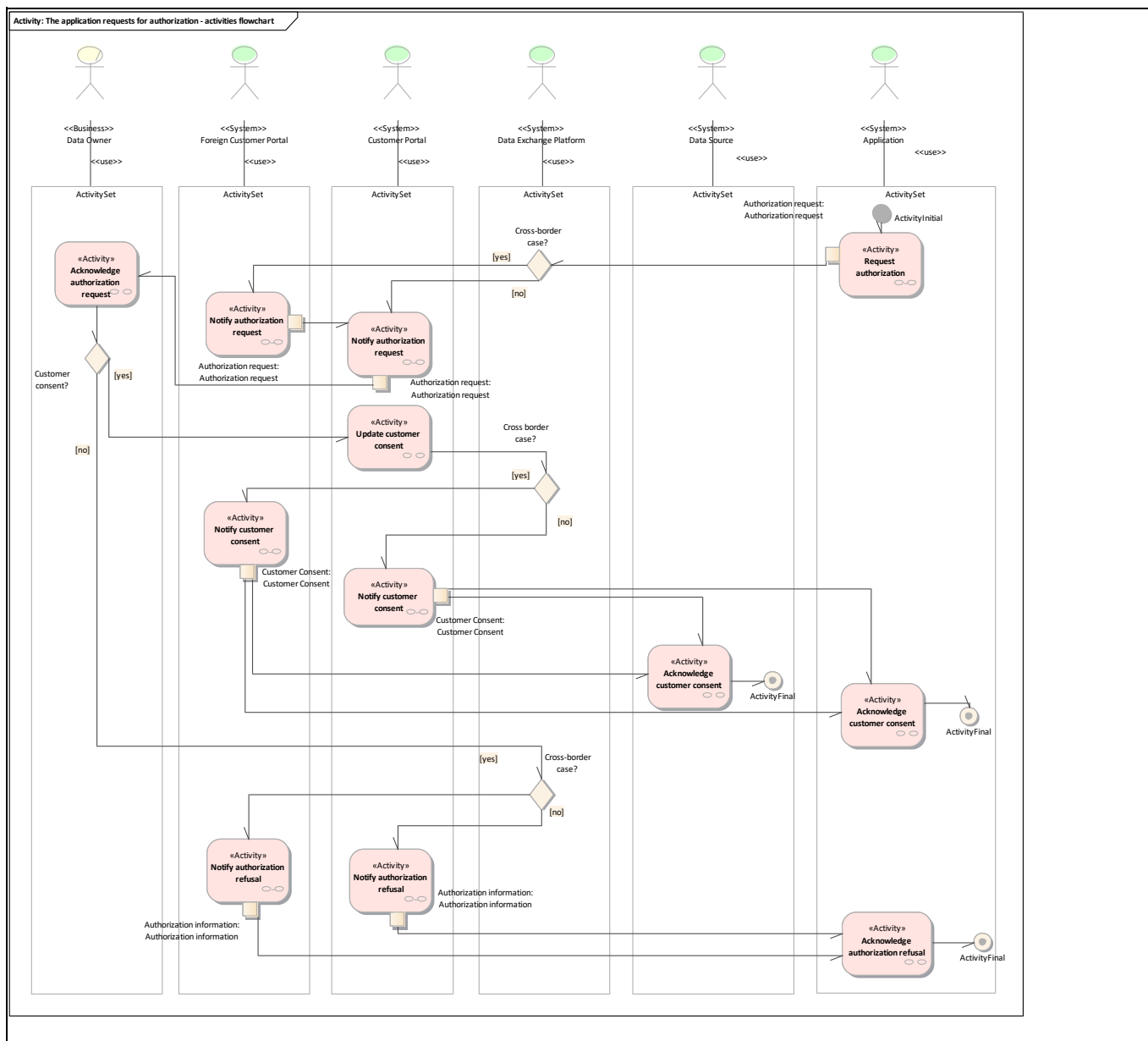
Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
Authorization information	Authorization information	

- **The application requests for authorization**
 - An application sends request for authorization in order to access the data of a data owner.
 - In the cross-border case, the DEP forwards the customer consent to the relevant foreign Customer Portal.
 - The Customer Portal operator sends the information about the authorization to the application (optional) and to the data source concerned (incl. in other countries).

<i>Requirement list (refer to "Requirement" section for more information)</i>	
<i>Requirement R-ID</i>	<i>Requirement name</i>
Cat1.Reg1	Consent Citizen Right
Cat2.Reg2	AUTHZN -REQ3
Cat2.Reg3	AUTHZN -REQ1
Cat2.Reg4	AUTHZN -REQ2





Scenario step by step analysis

Scenario								
Scenario name		The application requests for authorization						
Step No	Event	Name of process/activity	Description of process/activity	Service	Information producer (actor)	Information receiver (actor)	Information exchanged (IDs)	Requirement, R-IDs
2.1		Notify authorization refusal			Foreign Customer Portal	Application	Info2- Authorization information	
2.2		Notify authorization request			Foreign Customer Portal	CustomerPortal	Info3- Authorization request	

2.3		Notify customer consent			<u>Foreign Customer Portal</u>	<u>Application, Data Source</u>	Info1- Customer consent	
2.4		Request authorization			<u>Application</u>	<u>Foreign Customer Portal, Customer Portal</u>	Info3- Authorization request	
2.5		Notify authorization request			<u>Customer Portal</u>	<u>Data Owner</u>	Info3- Authorization request	
2.6		Acknowledge authorization request			<u>Data Owner</u>			
2.7		Create authorization			<u>Customer Portal</u>	<u>Customer Portal</u>		
2.8		Notify customer consent			<u>Customer Portal</u>	<u>Application, Data Source</u>	Info1- Customer consent	
2.9		Acknowledge customer consent			<u>Data Source</u>			
2.10		Acknowledge customer consent			<u>Application</u>			
2.11		Notify authorization refusal			<u>Customer Portal</u>	<u>Application</u>	Info1- Authorization information	
2.12		Acknowledge authorization refusal			<u>Application</u>			

- 2.1. Notify authorization refusal

Business section: The application requests for authorization/Notify authorization refusal

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Authorization information</u>	Authorization information	

- 2.2. Notify authorization request

Business section: The application requests for authorization/Notify authorization request

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Authorization request</u>	Authorization request	

- 2. 3. Notify customer consent

Business section: The application requests for authorization/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer Consent</u>	Customer Consent	

- 2.4. Request authorization

Business section: The application requests for authorization/Request authorization

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Authorization request</u>	Authorization request	

- 2.5. Notify authorization request

Business section: The application requests for authorization/Notify authorization request

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Authorization request</u>	Authorization request	Authorization request

- 2.8. Notify customer consent

Business section: The application requests for authorization/Notify customer consent

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Customer Consent</u>	Customer Consent	

- 2.11. Notify authorization refusal

Business section: The application requests for authorization/Notify authorization refusal

Information sent:

<i>Business object</i>	<i>Instance name</i>	<i>Instance description</i>
<u>Authorization information</u>	Authorization information	

5. Information exchanged

<i>Information exchanged</i>			
<i>Information exchanged, ID</i>	<i>Name of information</i>	<i>Description of information exchanged</i>	<i>Requirement, R-IDs</i>
Info1	Customer Consent		

Info2	Authorization information		
Info3	Authorization request		

6. Requirements (optional)

<i>Requirements (optional)</i>		
Categories ID	Category name for requirements	Category description
Cat1	Personal data	
Requirement R-ID	Requirement name	Requirement description
Req1	Consent Citizen Right	Right to withdraw consent or restrict the processing or sharing their data. Explicit and unambiguous informed consent must be obtained
<i>Requirements (optional)</i>		
Categories ID	Category name for requirements	Category description
Cat2	Task 5.3	Requirements integrated from Task 5.3.
Requirement R-ID	Requirement name	Requirement description
Req2	AUTHZN -REQ3	Ability to share access permissions between data owners, concerned DEPs, applications and data sources
Req3	AUTHZN -REQ1	Every person needs access permission
Req4	AUTHZN -REQ2	Valid identity of the person receiving access permissions

7. Common terms and definitions

8. Custom information (optional)