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Glossary

ACDC	Advanced Cyber Defence Centre
API	Application Programming Interface
CERT	Computer Emergency Response Team
CI	Critical Infrastructure
CSIRT	Computer Security Incident Response Team
DAM	Data Access Manager
DCH	Data Clearing House
DoW	Description of Work
EC3	European Cybercrime Centre
ECI	European Critical Infrastructure
EEC	European Economic Community
ENISA	European Network and Information Security Agency
EU	European Union
FS-ISAC	Financial Services - Information Sharing and Analysis Centre
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technologies
IETF	Internet Engineering Task Force
IGF	Internet Governance Forum
INTUG	International Telecommunications Users Group
ISAC	Information Sharing and Analysis Centre
ISACA	Information Systems Audit and Control Association
ISIC	International Standard Industrial Classification of All Economic Activities
ISP	Internet Service Provider
LAP	London Action Plan
LEA	Law Enforcement Authority
MAAWG	Messaging Anti-Abuse Working Group
NACE	Statistical Classification of Economic Activities in the European Community
RIPE (NCC)	RIPE Network Coordination Centre
SCADA	Supervisory Control and Data Acquisition
UML	Unified Modelling Language
US	Unites States

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1. Executive summary

In the elaboration of the ACDC community, one of the important points is to propose to stakeholders to become part of the community with concrete activities. This point is described across two deliverables:

- a) the stakeholders and list of activities are defined in D6.3.2
- b) the detailed interaction models for the stakeholders are defined in D6.3.1

The content of this deliverable is one the one hand organised to present different processes that are useful to stakeholders, ranging from acquiring and providing knowledge about botnet related initiatives all the way through active participation to so-called “ACDC experiments” and data sharing.

The importance of defining these processes in detail is linked to the building of trust. Trust is not a given, trust is a quality that has to be acquired progressively. To create a positive environment that can foster trust, users need to know precisely how they can operate, and whether they can be assured that data they provide will be linked to sharing rules that they themselves can select, but even evolve.

This is the reason for which this deliverable describes interaction processes available in the ACDC environment at a level of details. The other reason is that this level of detail and the formalism of UML chosen to describe the processes eases the transfer of information to the actual developers implementing these processes.

Five different types of activities are described, including initiatives, experiments, regulations, tools and services, data sharing. These activities cover the complete scope, from knowledge creation to data sharing, from new solutions to the regulatory environment.

2. Overview of the link between WP5 and WP6 deliverables (M12 deadline)

As WP6 has a last number of deliverables within the first 12 months, this section provides an overview of which deliverable provides what information. In addition, due to the close link to the dissemination activities of WP5 two deliverables from WP5 are also included in the description below.

This section is repeated in all WP6 deliverables.

Deliverables	What is in the deliverable?
D6.1.1 – user profiles and categorization	The different attributes used to categorize stakeholders, easing the prioritisation of the outreach activity of WP6 and the analysis of the different groups contributing to creating the ACDC community
D6.1.2 – identified users list	The analysis of the stakeholders identified through different activities. This analysis is based on contacts established with 90% of the 426 identified stakeholders.
D6.2.1 – ACDC social platform	The description of the ACDC platform and the extension of its functionalities with respect to the original role foreseen in the DoW
D6.2.2 – Adding social analytics to ACDC social platform	The addition of tools in the ACDC platform to monitor the activities and create a statistical overview of user activities
D6.3.1 – Involvement model for users in ACDC	A detailed description of the different activities that users can choose to be involved in ACDC, presented a UML graphs.
D6.3.2 – Report on user activities	A list of the activities carried out by ACDC partners over the first 12 months of existence to lead to user involvement. First results are the letters of intent signed by 5% of the stakeholders identified in D6.1.2. Next steps identify the different activities proposed to users to become involve in ACDC; these activities are supported by the detailed approach in D6.3.1.
D5.1.1 – dissemination plan	The full list of activities defined to create awareness about ACDC and support the outreach activities of WP6
D5.1.2 – intermediate dissemination report	The report of the dissemination activities of the first 12 months; this report is complemented by D6.3.2 for the section on individual meetings with organisations to reach the first level of involvement, i.e. letters of interest.

Table 1 – overview of the WP5 – WP6 deliverables over the first 12 months of operation

3. Introduction

This document models the interaction of stakeholders of the ACDC community (introduced and categorized in D6.1.1, identified in D6.1.2) with the ACDC community portal. Overall, it provides a detailed answer to **users wanting to know “what can I do in ACDC”?**

With respect to the initial Description of Work (DoW), the ACDC community portal’s role has evolved from a social platform to support interactions towards acting as the single entry point to ACDC’s clearing house. This evolution, which is described in deliverable D6.2.1, has created on the one hand a much richer community portal in terms of functionalities, and on the other hand, has introduced more online support for user involvement in ACDC.

These functionalities include users indicating their interest to participate to an experiment (new piloting of solutions after their integration), to access data (both retrieval and provision of data) and to evolve the regulations linked to data sharing. All these interaction models are directly aligned to the different activities proposed to users who have signed letters of interest, as described in deliverable D6.3.2. – the first report on user activities.

This deliverable, D6.3.1, focuses on describing the functionalities in details – and to ensure a continuum between the description and conveying these needs to the development team, the Unified Modelling Language (UML)[2] has been chosen as the way to describe users’ involvement in the community.

Among the different kind of diagrams that UML foresee for systems design, the Use Case Diagrams [3] have been chosen because they give a high level view on the functionalities the platform should offer, without overloading the description with details, that may evolve at development time, or in future platform deployments. In addition, use cases highlight the interaction of users with the community platform, thus allowing on one side the ACDC users to get an immediate feel of platform functionalities, and, on the other side, to create a common basis for developers in charge of tailoring platform functionalities to the ACDC community needs.

Section 3 details the use cases identified so far for the ACDC community portal. They have been grouped in **five interaction areas**, that relates to different topics:

- **Initiatives**– Find information about past, ongoing and planned botnet initiatives (to discover new opportunities for collaboration in business and research).
- **Experiments**– Collaborate to botnet experiments taking place within the ACDC community (and get access to the experiment results)
- **Regulations** – Contribute to improve regulations related to the botnet domain (to make the cyberworld a more attractive and safe place for your customers/users)
- **Tools/Services** – Discover the available tools and services to fight botnets (and provide suggestions for their improvements).
- **Data Sharing** – Share your data with other stakeholders in the ACDC community (and receive data from other stakeholders).

This results in more readable use case diagrams, and in a consistent view from the ACDC users point of view. As ACDC community will involve people with different skills, use cases have been enriched (by using UML stereotypes) with a notation that roughly identifies the kind of information the use cases deal with and thus the skills of involved people.

4. ACDC Portal Use Cases

As described in the introduction, the ACDC portal user cases are organised around 5 areas:

- Initiatives
- Experiments
- Regulations
- Tools / services
- Data sharing

Actors in the use case diagrams below are derived from the Stakeholders cyber security positioning areas (see D6.1.1 and D6.1.2).

However, when stakeholders with a different positioning (e.g. Research, Operational, CI Operators, ...) play the same role in a use case diagram, a new actor has been introduced to generalize the role in the diagram (e.g. Experiment Participant), and the actual actors specialize the general one.

Each use case is also labelled (with a UML stereotype) indicating the kind of content exchanged in the use case. This is useful to understand the skills that people should have to carry out the use case.

The following stereotypes have been used in diagrams:

- **<<networking>>** – this stereotype identifies use cases related to networking activities, i.e. create and maintain relationships with other stakeholders, prepare and send announcements to the community, etc.
- **<<technical>>** – this stereotype identifies use cases related to technical information exchange, e.g. technical feedback about a tool service
- **<<legal>>** – this stereotype identifies use cases related to legal information exchange, e.g. legal feedback about a regulation.
- **<<organizational>>** – this stereotype identifies use cases that are used to coordinate activities, e.g. the partitioning of work into tasks, reporting of task completion rate, etc.
- **<<automated>>** – this stereotype identifies use cases targeted to external systems, thus requiring Application Program Interfaces (API) to be implemented for the use case to be executed. The use cases annotated with this stereotype are not meant to be executed by human actors.

The use cases below are described from the operational point of view only, meaning they can be subject to prior processes and decisions by the ACDC community.

For instance, the decision to organize a new experiment (and the assignment of a coordinator, the definition of participants, etc.) will be defined by the ACDC community. Only once the decision has been taken by the community can the related use cases be executed in the portal by the assigned actors.

Two kinds of actors appears in the diagram:

- **Actors** (plain human figures) – this identifies roles that can be covered by members of the community in the portal. All use cases that appear in the diagrams relate to this kind of actors. The Stakeholder actor is the default one for the ACDC community, meaning all the community members can play the use cases related to the Stakeholder actor.
- **Business Actors** (like actors, with an additional diagonal line across the head) – this kind of actors corresponds to the Cybersecurity Positioning criteria as introduced in deliverable

D6.1.1. The aim of business actors is to give the reader an indication about the kind of ACDC community members that will play the use cases in fact.

Following subsections introduce the ACDC use cases. Each section starts by introducing motivations that led to the definition of use cases and the involved actors, and business actors. After actors, a use case diagram shows use cases and their relationships, that are briefly described afterward. The description includes, when applicable, the prerequisites that must be satisfied to execute the use case.

4.1. Initiatives use cases

Motivations for the Initiatives use cases:

Initiatives use cases allow Stakeholders of the ACDC community to report about existing or planned initiatives (e.g. conferences, research projects, workshops) related to botnet fighting. Informing stakeholders about initiatives can increase participation to events and attract new interests, as well as reveal new opportunities for collaboration among community members.

Actors and Business Actors:

- **Stakeholder** – this is the default role in the ACDC community. All community members have this role and will be able to look for past, ongoing and future initiatives related to botnet fight, as well as to report about changes, and new initiatives, to be stored in the ACDC community portal.
- **Initiative Manager** – a stakeholder in the ACDC community responsible to verify data about the initiative change reports, and apply the related changes. The Initiative Manager can also announce the presence or change of a new botnet fight initiative to the ACDC community.

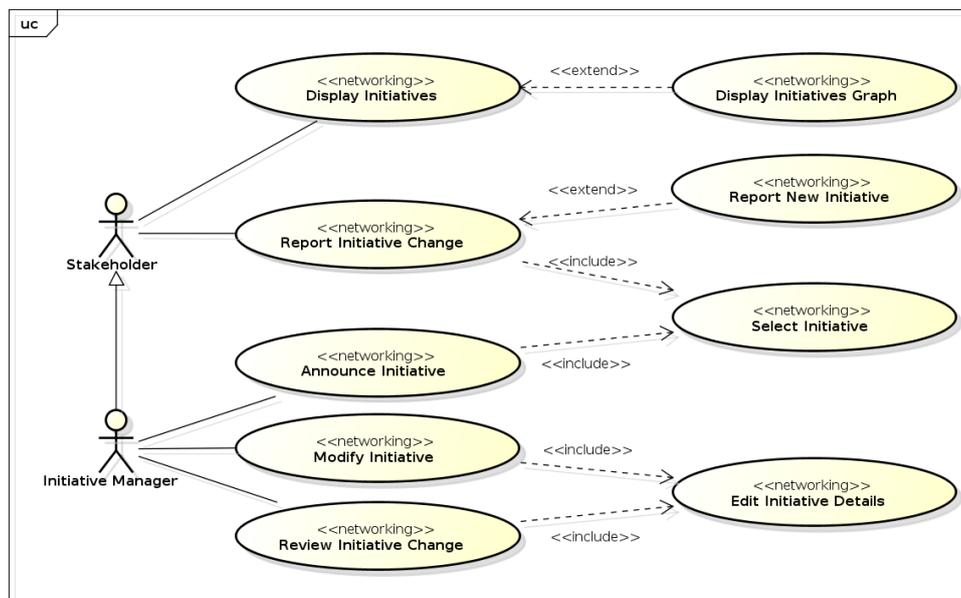


Figure 1 – Initiatives use case diagram

4.1.1. Display Initiatives use case

Description:



ACDC members will be enabled to display all the initiative details that are stored in the ACDC community portal. Initiatives and the participant organizations can be displayed either as list or as graph (extended use case *Display Initiative Graph*).

4.1.2. *Report Initiative Change use case*

Description:

All ACDC members (usually the initiative organizer or an initiative participant) can select an existing initiative among those present in the community portal (included use case *Select Initiative*), and report changes in the initiative details. The report may include (but not be limited to) changes to the name of initiative, start date, website, participants, kind of initiative (e.g. conference, research project, workshop, ...). The initiative report is then sent to the Initiative Manager for verification and to apply the suggested changes. This use case can also be executed to report about a new initiative that is not yet present in the portal (extended use case *Report New Initiative*), in this case the selection of an existing initiative (included use case *Select Initiative*) is skipped.

4.1.3. *Review Initiative Change use case*

Prerequisites:

The *Report Initiative Change* use case triggers this use case.

Description:

The Initiative Manager is notified that a new initiative change has been submitted and requires his/her attention. After (an offline) verification of information the Initiative Manager inputs/confirms the new initiative data in the portal by means of the *Edit Initiative Details* use case. From that moment the changes to the initiative are visible to all ACDC members.

4.1.4. *Modify Initiative*

Description:

The Initiative Manager may, without any previous request for change, include a new initiative in the ACDC community portal, or apply changes to an existing one. This may derive from external input about initiatives that are relevant for the ACDC community, but not yet reported by community members. The Initiative Manager inputs the new initiative data in the portal by means of the *Edit Initiative Details* use case.

4.1.5. *Announce_ Initiative use case*

Prerequisites:

The initiative to be announced must already be present in the community portal.

Description:

Announcement is a way to notify community members about botnet fight initiatives that may be of their interest. The announcement is prepared by the Initiative Manager by selecting the initiative subject to announcement (included use case *Select Initiative*) that may interact with Stakeholders involved in the initiative (indicated in the initiative details). The announcement will be targeted to relevant Stakeholders in the community based on their interests and involvement.



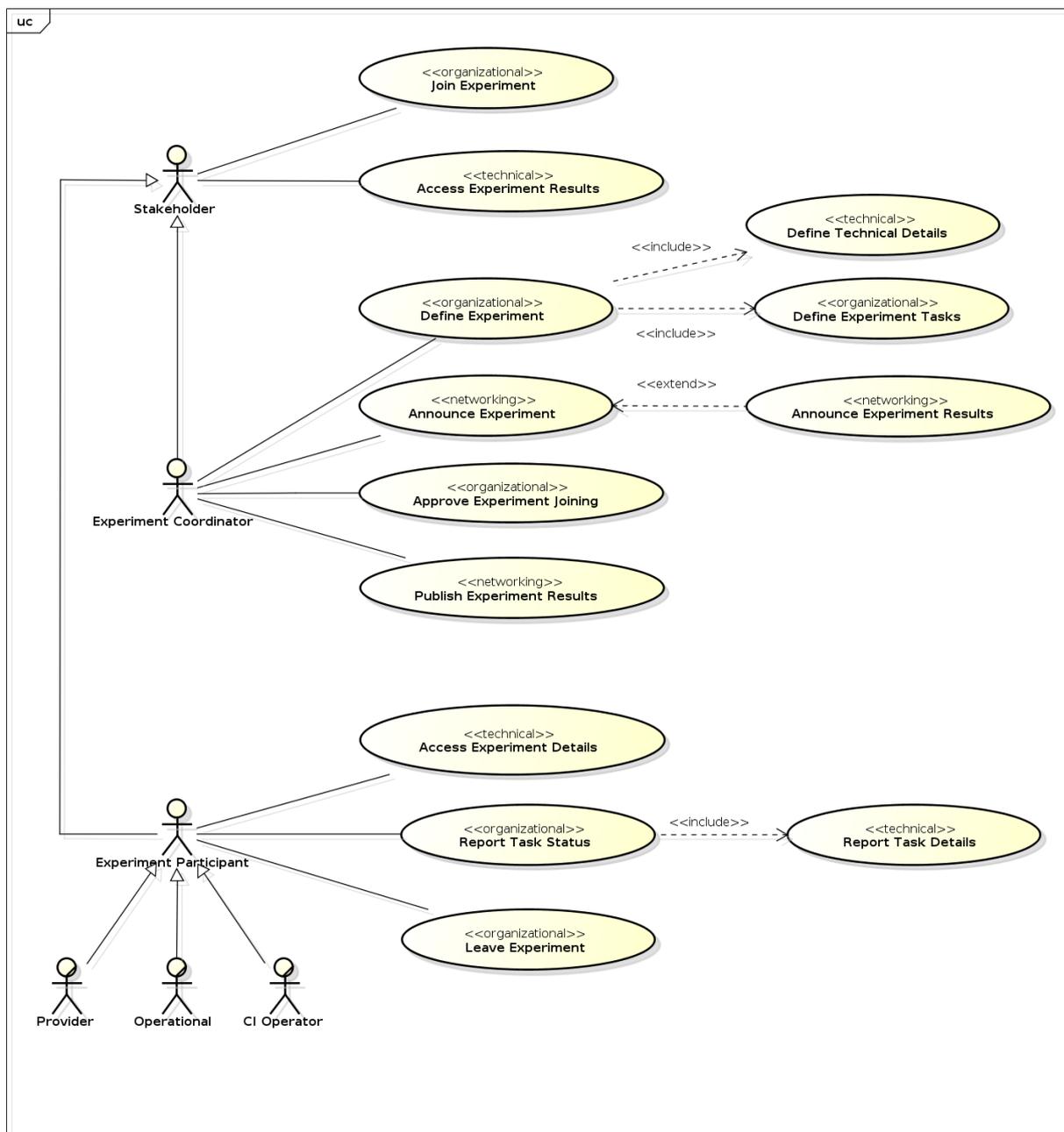
4.2. Experiments use cases

Motivations for the Experiments use cases:

A wider participation to experiments from the ACDC community is a key element for ACDC to increase the statistical relevance of experiments results. CI Operators, Operational and Service Providers can participate to experiments to test new solutions to fight botnets, and to get access to experiment results. As is the case in most of the ACDC activities in WP2 and WP3, these new solutions are often obtained by integrating multiple pre-existing solutions into a coherent end-to-end approach to improve detection, speed up mitigation etc.

Actors and Business Actors:

- **Stakeholder** – this is the default role in the ACDC community. All community members have this role and will be able to join experiments and access experiment results.
- **Experiment Coordinator** – the ACDC member responsible for the experiment organization and coordination, as well as for publishing of experiment results and announcements.
- **Experiment Participant** – a stakeholder in the ACDC community that collaborates in the experiment. This role is usually undertaken by CI Operators, CERT/CSIRT and Service Providers interested in testing solutions to fight botnets.



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Figure 2– Experiments use case diagram

4.2.1. Define Experiment use case

Description:

The Experiment Coordinator defines the experiment organization and initial participants. This includes the definition of technical details for the experiment (included use case *Define Technical Details*) and the partitioning of the experiment in tasks that participants will execute (included use case *Define Experiment Tasks*). Experiment Participants are notified about the tasks assigned to them. This use case can be executed multiple times to apply changes to the experiment tasks and technical details after definition (including the end of the experiment).



4.2.2. *Announce Experiment use case*

Prerequisites:

The experiment must have been defined by executing the *Define Experiment* use case.

Description:

The Experiment Coordinator executes this use case to announce a new experiment. The announcement will be targeted to experiment participants and other relevant Stakeholders in the community based on their interests and involvement. This use case can also be executed to announce the publication of experiment results (extended use case *Announce Experiment Results*). In this case the announcement will be linked to the related results (that must first have been published by executing the *Publish Experiment Results* use case).

4.2.3. *Join_ Experiment use case*

Prerequisites:

The experiment must have been defined by executing the *Define Experiment* use case.

Description:

Every Stakeholder in the community who knows about an experiment (for instance by receiving the experiment announcement, see the *Announce Experiment* use case) may ask to join. The candidature will be approved or rejected by the Experiment Coordinator (see the *Approve Experiment Joining* use case).

4.2.4. *Approve Experiment Joining use case*

Prerequisites:

The execution of the *Join Experiment* use case triggers this use case.

Description:

The Experiment Coordinator is notified that a community member asked to join the experiment (see the *Join Experiment* use case) and, following (an offline) verification he/she can decide to accept or deny the new member's participation to the experiment.

4.2.5. *Report Task Status use case*

Prerequisites:

The reporting participant must have been assigned to the reported task during the *Define Experiment* use case.

Description:

Experiment Participants can report about the status of tasks assigned to them (see the *Define Experiment* use case). The reporting includes a technical section about task status details (included use case *Report Task Details*).

4.2.6. *Leave Experiment use case*

Prerequisites:

The stakeholder joined the experiment.

Description:



Every participant to an experiment may decide to leave at any time the experiment by executing this use case. The Experiment Coordinator will be notified of the leave and may execute the *Define Experiment* use case to apply the required changes to experiment details and tasks.

4.2.7. *Publish Experiment Results use case*

Description:

At any point in time after the experiment's definition, the Experiment Coordinator may publish experiment results. Experiment results will take the form of a textual report and do not include data used or produced in the experiment that may be shared by means of the Data Clearing House (see use cases in section 3.5). This use case can be executed multiple times to incrementally publish results related to an experiment.

4.2.1. *Access Experiment Details use case*

Description:

At any point in time after the experiment's definition, Experiment Participants may access experiment details and tasks defined so far. This use case can be executed multiple times by each Experiment Participant.

4.2.2. *Access Experiment Results use case*

Description:

Every member of the ACDC community will get access to the experiment results. Experiment results will take the form of a textual report and do not include data used or produced in the experiment that may be shared by means of the Data Clearing House (see use cases in section 3.5). This is an important point to separate the publication of the results of an experiment from the data itself, as the results and the data may be associated to different access policies. In general, the results themselves will allow a larger dissemination than the specific data that may be more sensitive.

4.3. Regulations use cases

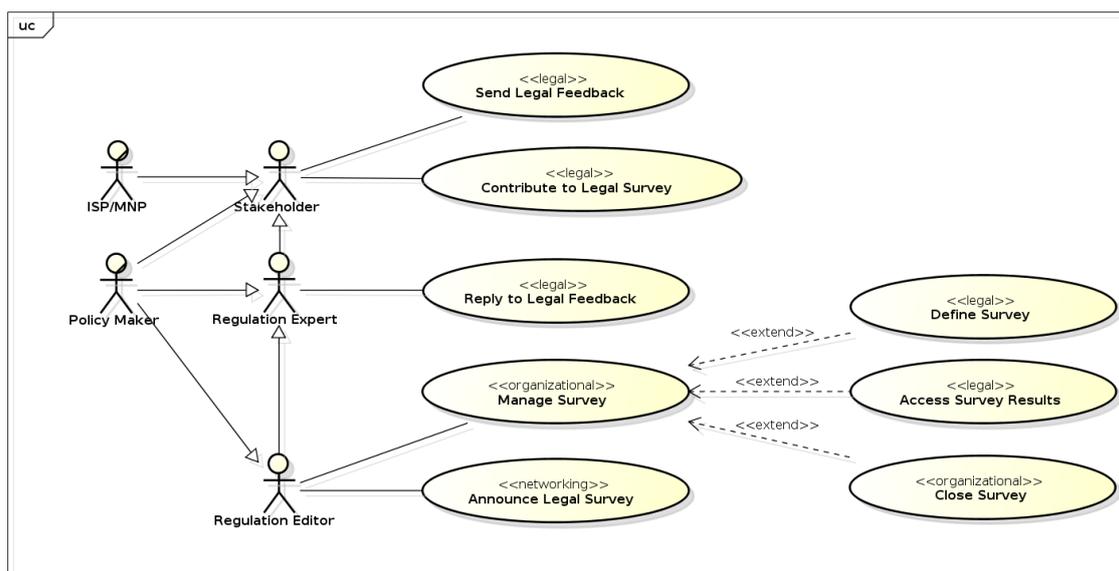
Motivations for the Regulations use cases:

Two ways of interaction are foreseen for the Regulations area: Legal Surveys and Legal Feedback. A **Legal Survey** can be useful to collect information from stakeholders that are subject to the regulation related to botnet fights in a given country (or will be subject, for a new regulation to be adopted). The stakeholders experience in fighting botnets can lead to useful suggestions to define the application of a new regulation, or to amend the existing one. Similarly, contribution to a legal survey by Citizens Associations and CI Operators may help the Regulation Editor to better take into account the citizens/customers rights in a given country.

Legal Feedback is different as it is triggered by stakeholders that enforce a regulation (e.g. a CI operators that has to be compliant with cybersecurity regulations, or a Technology Provider developing its security product accordingly to existing cybersecurity regulations) to provide a feedback to Policy Makers about existing regulations (or for those to be applied).

Actors and Business Actors:

- **Stakeholder** – this is the default role in the ACDC community. All community members have this role and will be able to ask for legal feedback and contribute to legal surveys. As an example, ISP members could ask for legal feedback before sharing data with other community members.
- **Regulation Expert** – an ACDC community member who has legal knowledge and is qualified to provide legal feedback to other community members. (This does not imply the actor will be always able to provide a feedback on requested subjects) This role could, for instance, be played by Policy Makers, or by universities that works on legal subjects.
- **Regulation Editor** – a stakeholder that is interested in collect information about cybersecurity regulation from the ACDC community. This role should mainly be played Policy Makers members.



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Figure 3– Regulations use case diagram

4.3.1. Manage Survey use case

Description:

The Regulation Editor can execute this use case to define the survey scope, the targets, the timing and the questions to be asked to targets (extended use case *Define Survey*). Through this use case he/she can also close the survey (extended use case *Close Survey*), as well as access the survey results (extended use case *Access Survey Results*).

4.3.2. Announce Legal Survey use case

Prerequisites:

The survey must have been defined by executing the *Define Survey* use case.

Description:

The Regulation Editor executes this use case to notify relevant stakeholders of the ACDC community about the possibility to contribute to a legal survey.

4.3.3. Contribute To Legal Survey use case

Prerequisites:



The survey must have been defined by executing the *Define Survey* use case.

Description:

Stakeholders knowing about the existence of a legal survey (for instance by receiving the related announcement) execute this use case to contribute to a legal survey. The survey contribution is notified to the Regulation Editor who created the survey, and who may use the *Access Survey Results* use case to access the contribution.

4.3.4. *Send Legal Feedback use case*

Description:

All ACDC members can use this use case to send feedback to Regulation Experts. The feedback can contain a request for clarification on the application of an existing regulation, or suggestions about new rules that may be useful to improve the efficiency/efficacy of botnet fight. Regulation Experts may reply to a Feedback by executing the *Reply to Legal Feedback* use case.

4.3.5. *Reply to Legal Feedback use case*

Description:

Regulation Experts execute this use case to reply to a legal feedback sent by a member of the ACDC community. This use case may be executed multiple times for the same feedback, to provide multiple replies from the same or different regulation experts in the community.

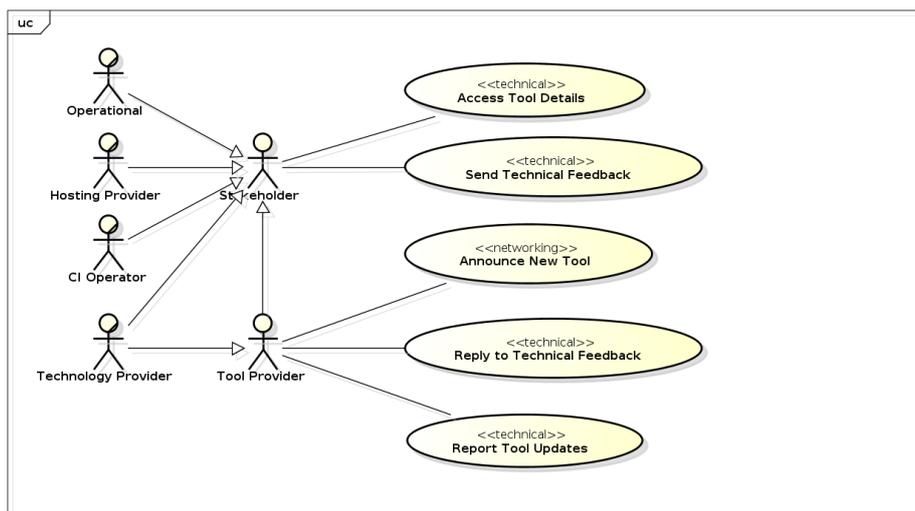
4.4. Tools / Services use cases

Motivations for the Tools / Services use cases:

The Tools/Services area of interaction is dedicated to the solutions already available to fight botnets. Technology Providers can promote adoption of their tools by means of announcements to the ACDC community. Technology users can, in turn, send technical feedback to Technology Providers for product improvements.

Actors and Business Actors:

- **Stakeholder** – this is the default role in the ACDC community. All community members have this role and will be able to send technical feedback to tool providers. This role could be played by Operational members, Hosting Providers and CI Operators using tools and services to fight botnets.
- **Tool Provider** – an ACDC community member providing tools and/or services to fight botnets. He/she can announce new tool or service, as well as reply to technical feedback sent by users. This role is typically played by Technology Providers in the ACDC community.



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Figure 4– Tool&Services use case diagram

4.4.1. Announce New Tool use case

Description:

Tool Providers can execute this use case to announce the availability of a new tool or service to fight botnets. The announcement will be targeted to Stakeholders of the ACDC community based on their interests and involvement.

4.4.2. Access Tool Details

Description:

Stakeholders of the ACDC community can execute this use case to access details of a tool to fight botnet already reported in the platform. Details about the tool includes the technical feedback provided by ACDC members and related replies from the Tool Provider.

4.4.3. Send Technical Feedback use case

Description:

This use cases can be executed by every member of the ACDC community to send feedback to the Tool Provider about a tool/service. The feedback can contain a request for clarification about the tool/service or suggestions for tool/service improvement.

4.4.4. Reply to Technical Feedback use case

Description:

The Tool Provider can execute this use case to reply to a feedback sent by a community member. This use case may be executed multiple times for the same feedback, to provide multiple replies.

4.4.5. Report Tool Updates

Description:

This use case is executed by Tool Providers to report about wrong or outdated information about a tool. The report will be processed by administrators of the community platform who will update the tool description, as and if needed.



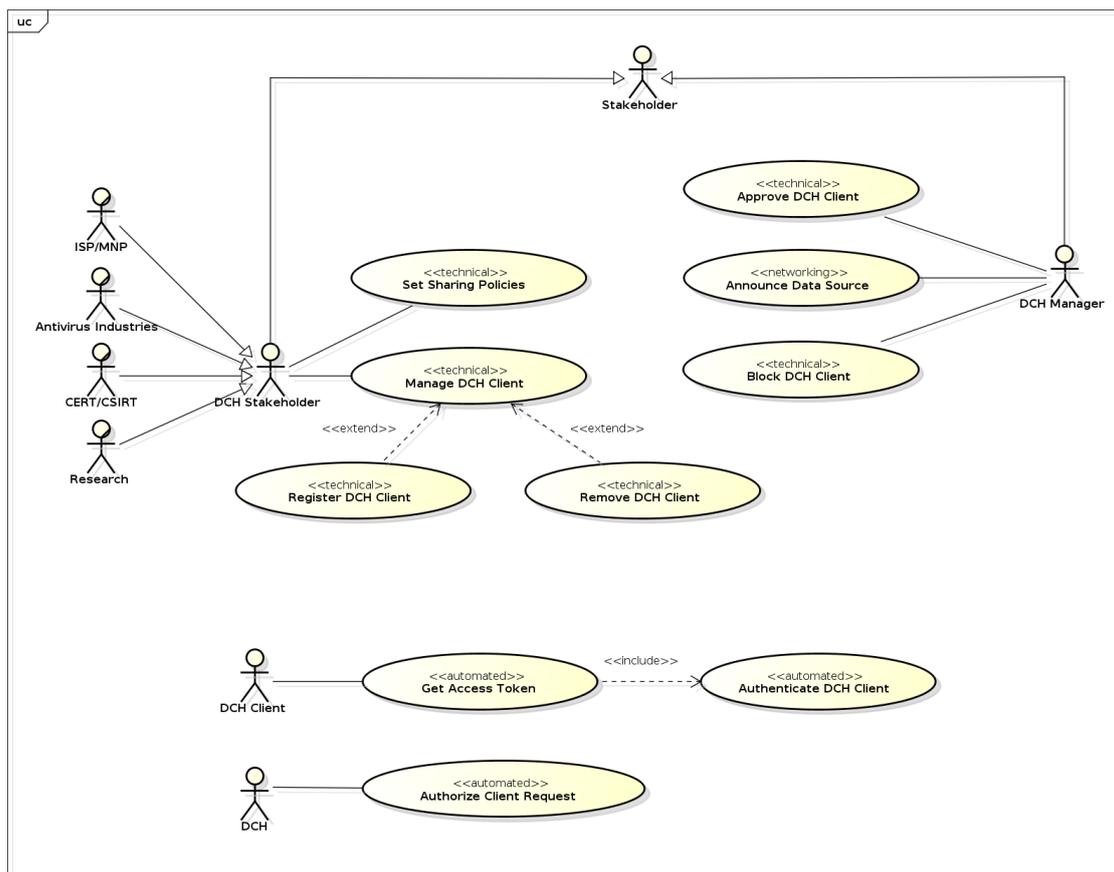
4.5. Data Sharing use cases

Motivations for the data sharing use cases:

Sharing of data is one of the ACDC project goals. The sharing of data takes place through the Data Clearing House (DCH). The role of the community portal in the data sharing is to identify stakeholders entitled to ask for (or provide) data among the community, as well as allow them to set the rules that constrain the data sharing within the community. These rules create access policies that are implemented by the community portal and managed by the DCH. The benefit of sharing data is that (depending on agreements) the stakeholder may get data from other DCH Stakeholders.

Actors and Business Actors:

- **Stakeholder** – this is the default role in the ACDC community. All community members have this role and can potentially share data within the community.
- **DCH Stakeholder** – this role identifies members who actually share data within the community, by means of a DCH client. Usually this role is played by Internet service Providers or Mobile Network Providers, Antivirus Industries, CERT/CSIRT and Research organizations.
- **DCH Manager** – this role is played by the manager of the DCH in the ACDC community. Users with this role can approve or block DCH clients, as well as send announcements to the community about the availability of data sources in the DCH. This is a technical role and acts as an identifier for users entitled to execute the related use cases in the community portal. Depending on the rules of the ACDC community, decisions about DCH client approval and/or blocking could be taken at a higher level in the ACDC community (by one of the ACDC community boards). This will be further refined after the first months of operations of the community portal, to reach the optimal equilibrium between flexibility, agility and protection.
- **DCH Client** – this actor represents an external system that interfaces with the ACDC community portal to authenticate, and to the DCH to publish/retrieve data.
- **DCH** – this actor represents the Data Clearing House that interfaces with the ACDC community portal to authorize requests from DCH Clients



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Figure 5– Data Sharing use case diagram

4.5.1. Manage DCH Client

Description:

Before the DCH stakeholder can access a particular resource, he needs to execute this use case to get the credentials for at least one DCH Client (extended use case *Register DCH Client*). The request to register a new DCH client is submitted through the community portal and approved by the DCH Manager. The request should include the kind of information the new DCH Client will provide/retrieve from the platform. Once approved, the credentials for the DCH Client are generated and made available to the DCH Stakeholder. At any time the DCH Stakeholder can decide to remove his/her DCH Client(s) (extended use case *Remove DCH Client*) thus invalidating the related credentials.

4.5.2. Set Sharing Policies

Description:

The DCH Stakeholder executes this use case to define (or modify) policies that governs the sharing of stakeholder's data provided to the DCH (through the DCH Clients registered by the stakeholder). Different sharing policies can be set depending on the kind of data provided by the DCH Stakeholder. Sharing policies can be either associated to all the information provided by the Stakeholder through its registered DCH Clients, or to the information provided by a specific DCH Client.



4.5.3. *Approve DCH Client*

Prerequisites:

The execution of the *Register DCH Client* use case triggers this use case.

Description:

The DCH Manager executes this use case to approve the creation of credentials for a new DCH Client. Once approved, the DCH Stakeholder that requested the DCH Client registration is notified of the approval and of the new credentials.

4.5.4. *Block DCH Client*

Prerequisites:

The DCH Client must have been approved (see the *Approve DCH Client* use case).

Description:

The DCH Manager executes this use case to block credentials related to a DCH Client. This may happen for different reasons (e.g.: malicious behaviour of the DCH Client, break of community terms of use for data usage, ...). Once blocked, the DCH Stakeholder who owns the interested DCH Client is notified about the blocking of his / her credentials..

4.5.5. *Announce Data Source*

Description:

The DCH Manager executes this use case to notify the ACDC community that a new data source is available in the DCH (e.g.: a new stakeholder is providing data, new kind of data can be provided to or retrieved from the DCH, ...). The announcement will be targeted to Stakeholders of the ACDC community based on their interests and involvement.

4.5.6. *Get Access Token*

Description:

The DCH Client executes this use case to get a temporary access token that allows requests to the DCH. The access token has a limited time based validity and is saved by the community portal for later verification (until it expires). This use case includes the authentication of the DCH Client (included use case *Authenticate DCH Client*) by means of the credentials received as a result of the DCH Client registration (see the *Register DCH Client* use case) and approval (see the *Approve DCH Client* use case).

4.5.7. *Authorize Client Request*

Description:

The DCH executes this use case to validate a temporary access token received by a DCH Client, together with the client request. The DCH asks the ACDC community portal for the token validation and for the authorization of the related request. Depending on the sharing policies that have been set on the requested content by content owners (see the *Set Sharing Policies* use case) the data that the DCH can return to the DCH Client may be limited.



5. References

- [1] ACDC Description of Work, 2012
- [2] Unified Modelling Language, http://en.wikipedia.org/wiki/Unified_Modeling_Language
- [3] Use Case Diagram, http://en.wikipedia.org/wiki/Use_Case_Diagram