

HOW TO DO A CASE STUDY

1. Introduction

This document provides an insight into the steps required to prepare a case study, from identification of potential projects to the final write-up.

Case studies provide a method to demonstrate in an attractive and concise manner how end users benefit from the connectivity and other services provided jointly by R&E networks around the globe. Published case studies can benefit R&E networks by demonstrating to stakeholders (e.g. funding organisations such as national governments or the European Union) of the benefits afforded by R&E connectivity and services. Equally they can help demonstrate to other user groups how they may benefit by the services offered by NRENs and regional networks.

2. Case Study Subjects

In the global R&E networking world, there is general awareness of the uses made by larger user groups of R&E connectivity. Examples include the LHC, radio astronomy, the Human Brain Project, etc. However, there are many smaller scale projects which could not be managed as efficiently without R&E connectivity and services. Within the Global Liaison Task of GÉANT, and also for projects such as TEIN, CAREN, EUMEDCONNECT, emphasis has been laid on focusing on case studies which tell the story of projects with societal benefit, including those which contribute to meeting the Millennium Development Goals.

Subject areas covered previously by GÉANT and EC-funded regional projects include: the arts; medical diagnosis and treatment; the environment; grid computing; typhoon forecasting; e-education. GÉANT case studies can be viewed here:

http://www.geant.net/Resources/Media_Library/Pages/Case-Studies.aspx

3. Identifying Suitable Case Study Subjects

A number of sources can be used to try and identify user projects which may have potential as case studies:

1. Cordis (http://cordis.europa.eu/home_en.html) is the European Commission's primary public repository and portal to disseminate information on all EU-funded research projects. Cordis is a searchable database and is highly recommended as a source of initial information, though it cannot be denied that the search process can be long and laborious. The website includes a page which focuses on highlighting specific projects:
http://cordis.europa.eu/projects/home_en.html
2. Search engines such as Google, Bing, etc. can naturally provide a useful tool to identify current projects in specific fields. Searches can be hit-and-miss but can also be useful.

3. The websites of member associations for specific research areas (e.g. the European Association for Cancer Research) may provide links to individual research projects.
4. Newsletters can be a welcome source of information on projects. The following are some suggestions:
 - Digital Agenda for Europe Newsroom Newsletter. Sign up at: <http://ec.europa.eu/digital-agenda/en/newsroom/> The webpage also provides links project news and results: <https://ec.europa.eu/digital-agenda/en/newsroom/all/1017>
 - International Innovation newsletter. Click here to subscribe: <http://www.research-europe.com/subscribe.php>
 - The research*eu results magazine: http://cordis.europa.eu/research-eu/magazine_en.html
5. Word of mouth among Global PR Network participants.

Once an interesting-sounding project has been identified, the next points to take into consideration are the following:

1. Do they appear to have, or are likely to have networking needs?
2. Are the end sites connected to the local NREN. This can be investigated by:
 - Carrying out a ping to the end site's website. Note though that a negative result here may be incorrect. An institution may outsource its website provision to a commercial entity not on R&E networks.
 - Enquiring with the local NREN. Some NRENs list connected institutions on their websites. (The corresponding World Region page at <http://www.geant.net/Network/Global-Connectivity/Pages/World-Regions.aspx> provides links to most global NRENs' websites). For European NREN links, visit: <http://www.geant.net/About/partners/Pages/Home.aspx>

4. Reaching Out to the Project

To determine once and for all if any given project is suitable for a case study, it is necessary to contact the project and identify how R&E connectivity and/or end user services are used. The following steps are recommended:

1. Contact the project coordinator (if an EC-funded project, this information will be available from the CORDIS database). If a direct e-mail address is not available, try using the contact details on the project website.
2. Explain that you are not selling anything, but are interested in promotion of their project which could be to mutual benefit. Also explain that through our user support teams, we could potentially also assist them meet current or future needs.
3. Obtain the local NREN's buy-in before contacting the project coordinator, and offer to copy an NREN representative in exchanges. If this is not required, be sure to keep the NREN up-to-date on developments.
4. If an EC project, try and identify the Project Officer (potentially via the project website) and include him/her in contact with the project coordinator. The Project Officer is the liaison person between the EC and the project and who ensures that the project is progressing as expected.

5. Once a willingness has been obtained from the Project Coordinator to participate, provide a series of questions which will enable you to determine more precisely how the project is using R&E networks, and whether there is potential for a case study or maybe a news story. GÉANT uses a questionnaire which may be adapted as required (see APPENDIX I: Case Study Questionnaire).
6. If the project coordinator does not respond, it might be worth trying to contact the project via one of the other project participants.

5. The Write-up

1. If you are writing the copy of the case study yourself, be sure to centre the story around the people and the benefit for others the project brings, as well as highlighting how R&E networks provide the support without which the project would not be as efficient or even possible.
2. If the copy is to be written by someone else, ensure that the information you pass on will enable to do the points covered in 1 above.
3. Ensure that suitable visual material (photos of project participants, images to support the story, including graphics if appropriate) are made available for the final case study.

6. Final Comments

Identifying suitable projects and getting sufficient information on them to produce a case study is no easy matter. Both perseverance and a willingness to drop a subject if results are not forthcoming are both important.

Good luck!

APPENDIX I: Case Study Questionnaire

Questionnaire

The purpose of this questionnaire is to gain a better understanding of the XXXXX project and to capture the data communication network requirements of applications the collaborative research relies on.

*Thank you for taking the time to provide us with this input. We would be grateful if you could complete this questionnaire and return it to xyz@xyz.net by **DATE**.*

A. Your details

Please provide us with your contact details.

Name:

Organisation:

Position:

Email:

Telephone:

B. Your research activity

In this section we would like you to briefly describe the project you are coordinating.

1. Please confirm the name of the project and outline its topic and main objectives.

Project Name:

Topic/Subject Area:

Objectives:

C. Your research tools/applications

In this section we would like you to outline the tools of research collaboration your project relies on. In particular, we would like to find out about the collaboration with your project partners in the [Specify countries/region].. Please sketch details where applicable.

1. Which of the following methods of communication do you use with fellow scientists/project partners who are not at the same institution? (please tick as appropriate)

- Audio conferencing
- Video conferencing
- Skype
- Wiki
- Email
- Other (please specify)

2. Does your research collaboration with the project partners involve large file transfer over a data communication network?

Yes

No

If yes, can you specify what is the typical size of such files?

- 1-50MB
- 50-100MB
- 100-250MB
- 250-500MB
- 500MB-1GB
- more than 1GB

Which project partners have the most intensive data exchange?

3. Does your research rely on compute and data-intensive models and simulations?

Yes No

If yes, please provide details.

4. Does your research require

- **geographically distributed data processing**
- **access to remote databases**
- **distribute computing systems**
- **collaboration with research institution/project across world**
- **some another remote applications (e.g. access to remote instrumentation sites etc.)**

D. Your network requirements

In this section we would like you to describe your network requirements and the facilities currently available to you to support the above applications/tools and to illustrate any limitations.

1. Which network parameters are important for your research? If possible, please describe these requirements in relation to specific applications.

a) Bandwidth [indicate if your application(s) is/are bandwidth-hungry]

b) Time-critical [indicate if the time delay between data being sent and received is important for a specific application]

c) Reliability [indicate if your application(s) require(s) a robust and resilient network able to accommodate outages and minimize downtimes]

d) Geographical scope [indicate whether pan-European and/or global connections are required]

e) Security [describe your requirements for security/privacy of data or resources]

f) Others [please specify]

2. Is your research currently limited by the available network facilities.

Yes

No

If yes, please provide details:

3. To what extent is your research collaboration with your project partners limited by the available network facilities

4. What changes, if any, would you like to see to enable your project to make more or better use of the network facilities?

5. Does your research involve collaboration between groups that come partially from the non-profit sector and partially from the commercial sector? If so, what problems are there as regards networking?

D. GÉANT and its services

In this section we would like to gauge your awareness/use of Research & Education Networks including the pan-European research network GÉANT. You can read an introduction to Research and Education Networks at:

<http://www.geant.net/Network/RandE/Pages/home.aspx>

1. Are you currently using the GÉANT network?

Yes

No

Not sure

If no, please provide reasons.

APPENDIX 2: Introductory Letter Template

The following is a template which may be used as an introductory letter to user projects when investigating potential case studies. The highlighted text should be adapted to the user project in question: