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## Deliverable DN3.0.2: Organisation of User Support for GÉANT2



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### Abstract

This deliverable proposes a process to support demanding new users of the GÉANT2 network. It is necessary to firstly distinguish between the many millions of individuals using networks connecting to GÉANT2 and whose needs are met by standard GÉANT2 service, and those users with very particular demands. It is these, demanding users to which the approach outlined in this document is directed. These users may be more demanding in terms of network performance, network security or network quality. They are largely comprised of organised pan-European collaborative consortiums, although the nature of their research can be highly diverse. The deliverable sets out the steps which may be taken by the nominated GÉANT2 personnel to understand the user requirement, seek solutions to the user's demands within the framework of the GÉANT2 architecture and, together with NREN partners, resource and implement a solution acceptable to all parties. It attempts to make this process transparent and accountable, whilst recognising the variety of likely requests and maintaining the flexibility to meet them.

# Table of Contents

0	Executive Summary	iii
1	Introduction	1
2	User Support Process	3
2.1	Initial Contact	3
2.2	User Questionnaire	3
2.3	Evaluate Support Package and Identify Stakeholders	4
2.4	Planning and Implementation	4
2.5	Continued Support	5
Appendix A	List of Proposed Associated Documents	7
Appendix B	User Questionnaire (example)	8

## 0 Executive Summary

This deliverable proposes a strategy for user support to be adopted by DANTE and the NRENs under the GN2 project. It will feature in pages dedicated to network users to be published as part of the GÉANT2 website ([www.geant2.net](http://www.geant2.net)). These pages are intended to offer guidelines to potential and new users of the GÉANT2 network on how to connect to the network and to access the specialised services available to research groups. This document suggests a systematic approach to the project management of user accounts, to achieve an increased level of accountability, transparency and service. It is primarily aimed at users who currently or potentially are likely to require pan-European support and service provision tailored to their particular application. This text, along with the associated documents and templates listed in Appendix 1 will offer a code for user support within GÉANT2 which may help create a GÉANT2 user information resource where user-related data, requests and significant interactions are recorded. It provides, in broad terms, the basis of a service charter for an eligible research group approaching GÉANT2.

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
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# 1 Introduction

The GÉANT2 network is envisaged to meet the qualitatively and quantitatively changing networking needs of Europe's research community. As the capacity, flexibility and range of services offered by GÉANT2 increases, the usage of the network as a fundamental tool of advanced research becomes universal in many fields. Increasingly, new research areas and techniques are being enabled by this technology. It is thus essential that network users' needs, particularly those of researchers who rely most heavily on GÉANT2, are well understood and are acted upon in a consistent, transparent and efficient manner. It is from this perspective that a structure for the management of these user 'accounts' is being created.

It is intended that the user support area on the GÉANT2 website will form a dual function. It will highlight user case studies supported by GÉANT2, to increase awareness of the network amongst potential users and illustrate the services offered under GÉANT. It will also provide a first point of contact for researchers intending to make use of GÉANT2-specific services. The process does not cover research networking activities which either a) do not contain an international element or b) whose international networking aspect is sufficiently straightforward and of a low level, such that GÉANT2-specific support or services are not required.

The demanding users of the network, which are to be supported by this function, may be best defined as organised groups of users, whose pan-European or global networking needs cannot be met by the services of any single NREN and whose networking needs exceed the *de facto* services. It should be pointed out that these users are likely to be relatively few in number; hence it is felt that tailoring custom solutions to their needs is more important than providing a rigid rulebook. It is hoped that this document will set out expectations of the service provided without restricting the manner in which these might be implemented.

It is of value to record in an organised fashion the entire lifecycle of user support, from initial contact through to change management of well established services. This can most effectively be achieved by defining and implementing a set of procedures, bringing accountability and service commitment to what must remain a flexible system.

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
Document Code:	GN2-05-044v2

It should be possible, through such a service, to provide a demonstrable level of customer service and provide something of a metric for the level of responsiveness of GÉANT2 to the needs of its users. The aim of the user support function should be to offer a high level of customer service and reinforce a customer-focussed approach to research networking as a whole

## 2 User Support Process

### 2.1 Initial Contact

An initial approach by a research or educational group wishing to connect to the GÉANT2 network is likely to be made either directly to DANTE or via one or more of the NRENs. Upon this contact it must first be established that the user group concerned meet the criteria to use the GÉANT2 network and the national research and educational networks involved. Note: there can be no hard and fast set of criteria since NRENs operate under a variety of organisational and funding structures, often unique to the particular country and organisation concerned. The criterion to use GÉANT2 is thus only that all traffic should pass onto the network via a one or more connected NREN. A similar policy applies in the case of projects with partners outside the European NREN community, GÉANT2 having reciprocal arrangements with research networking organisations worldwide. In all cases the user must proceed by contacting their connecting NREN, even if that network does not peer directly with GÉANT2. Once the potential user group has established its credentials it can be added to an index of potential users and assigned a point of contact within the structure of GÉANT2. In most instances this will be the User Support Manager at DANTE.

### 2.2 User Questionnaire

A requirement-gathering exercise should take place, to clearly establish the needs of the particular user group and how these can be facilitated using the resources available. Since at this early stage of User-Network interaction no details are presumed to be known and the basic levels of service requirement must be established, the questions posed to the user group will be fairly generic. The most convenient way for this initial

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
Document Code:	GN2-05-044v2

information to be gathered is likely to be in the form of a questionnaire. An example of the range of questions which may be appropriate for this initial fact-finding is given in Appendix B. Note that there is space within the questionnaire to add subsequent comments and clarification from DANTE or NREN staff as the case history develops. This questionnaire can thus form a part of a user record index.

## 2.3 Evaluate Support Package and Identify Stakeholders

Based upon the results of the user questionnaire and an initial consultation meeting with the user group coordinator, an evaluation can be made of the scope of the user support required. It should include a summary of the user groups networking objectives, a realistic assessment of the demands of the user and the appropriateness of these in the light of the application. It might also include an initial evaluation of timescale and workload.

After consultation between DANTE and the NRENS, a list of stakeholders and contact points can be drawn up, and included as part of the package of documents associated with the user index. This may then be circulated to all interested parties. The list might usefully include:

- Central co-ordinator from the user group (and 2nd contact name)
- Project Champion (sponsor) from the user group -able to act on the project's behalf at a policy level.
- Central co-ordinator for the networking community (eg GÉANT2 user support)
- Point of contact at each NREN involved in the project
- PERT manager or member of GÉANT2 operations team
- Additional technical staff associated with particular user demands (as required)

It should be clear from this stage of the assessment what the project entails, who is leading it, the required outcome and who will address the associated issues. The next section aims to set out how the work will be implemented.

## 2.4 Planning and Implementation

The principal stakeholders (listed above) should meet to finalise details and arrange a detailed action plan (including resource planning, timeline etc) to achieve the ultimate goal. It should be possible to define the design of the Optical Private Network (if appropriate) for the project, which can be reviewed at subsequent meetings and interim milestones monitored. A register of actions and action-holders can be agreed to be

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
Document Code:	GN2-05-044v2

consulted and updated regularly. The action holder might also include an assessment of the workload associated with each action and a date of completion agreed. An appropriate date can be set for a subsequent review meeting to assess progress on actions so-far.

A risk register, outlining possible risks associated with networking aspects of the project may also be drawn up. The likelihood of each risk can then be assessed and contingency strategies considered. Such a list must be regularly updated in order to maintain its relevance. All documents and any related reports should be filed in an accessible location under a common structure for ease of access by interested (and authorised) parties.

As has been stated in section 1 it is unhelpful to define a user support process too specifically, since the demanding users are few in number and diverse in their requirements. The implementation of the following services may be worthy of consideration depending upon the application:

- Local loop services are these well understood and appropriate to the project?
- Performance Enhancement Response Team: an account may be registered for users with network performance issues
- Bandwidth on Demand: for some projects it will be appropriate to book network bandwidth; this will develop as the JRA activity progresses.
- Network monitoring: DANTE operations division can help users with the monitoring of data flows and network diagnostic tools. Consequently, monitoring user traffic would allow a network usage and performance report to be generated, to review the use made of the network by the user group and its performance over the relevant links.
- A user-group-specific network weathermap could be created, to display network traffic over the particular routes connecting the sites of that project.

## 2.5 Continued Support

Once the connectivity and services requested by the user group have been agreed as operational, a further charter may be established to quantify the type and level of service to be expected from the end-to-end network solution. This may well interface with the SA3 and JRA1 activities.

It should also be recognised that users are entitled to information upon changes to the service being provided, even if temporary. In the provision of an end-to-end solution including national networks along with GÉANT2, it

might be appropriate if this information be logged with a central co-ordinator, in addition to being fed to the contact points in the user group.

Since few projects are likely to remain static in their requirements and there will inevitably be changes to the service provided by GÉANT2 during its lifecycle, a mechanism for changes to the established service might prove useful. Similarly, any change to the service level requirement from the user must be agreed by all stakeholders and must continue to meet the usage policy requirements of GÉANT2 and the NRENs.

Looking towards the future, GÉANT must continue to meet user demands, and to encourage new developments, applications and network based research techniques. A consequence of close cooperation between the GÉANT2 consortium and the end-user community should be the ability to use project case studies on the GÉANT2 website and in promotional material, to inspire other user groups in their research networking ambitions. Thus the role of user support in successful research and education projects becomes a highly effective advertisement for the networking community itself.

## Appendix A **List of Proposed Associated Documents**

- Confirmation from each NREN involved stating compatibility of the user with their usage policy
- User questionnaire (see Appendix 2)
- Short evaluation (minutes from meeting)
- List of stakeholders and points of contact
- Action register
- Project timeline
- Issue/ risk register
- Continued service charter (project specific)
- Service requirement change note
- Service delivery change note

## Appendix B User Questionnaire (example)

This questionnaire is intended to provide basic information on the requirements of a new user group intending to use the GÉANT2 network. It does not propose to be comprehensive, since by definition, these demanding user groups are highly individual in their requirements. It may be seen as a precursor to a first project meeting.

### Section 1: User Group Details

**Name:** [Give full name of the project or institution requiring GÉANT2 user status]

**Field of Education or Research:** [Give a short description of the field of work]

**Project Description:** [Describe, briefly, the project, its aims and motivation]

**Contact Names:** [Provide the names and contact details, including email addresses and telephone numbers, of two project staff who may be contacted on issues relating to GÉANT2 and NREN usage]

**Project Champion Name:** [Provide the name and full contact details of a senior member of the user project staff prepared to take responsibility for the success of the collaboration]

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
Document Code:	GN2-05-044v2

## Section 2: Technical Requirements of User Group

**Locations to be connected:** [List the names and addresses of all the sites to be connected within this project]

**National Research and Education Networks Involved:** [List the NRENs used to connect to the sites listed and confirm that each has accepted the project as meeting its eligibility criteria]

**Bandwidth Required:** [Indicate the bandwidth requirement of each site to be connected]

**Quality of Service Required:** [Please state the quality-of-service requirement for the connectivity requested. Definitions of the QoS criteria are given on the GÉANT2 website ([www.geant2.net](http://www.geant2.net)). Please justify your choice if Premium IP is requested]

**Latency and Jitter Requirement:** [If the time delay between data being sent and received is important, please indicate how]

**Traffic and Usage Patterns:** [Indicate the likely traffic and usage patterns and whether the traffic is uni- or bi-directional on the links]

**Security Requirements:** [Has the project particular data protection issues which require security features to be implemented?]

Project:	GN2
Deliverable Number:	DN3.0.2
Date of Issue:	02/03/05
EC Contract No.:	511082
Document Code:	GN2-05-044v2

**Performance Monitoring:** [Describe any requirements for network monitoring tools associated with the application]

**Project Timetable:** [If possible, please supply a project timeline, or a list of dates relevant to the implementation of the network solution]

**Further Information:** [Please list any further requirements or information relevant to the networking aspects of the project]

### Section 3: GÉANT Solution

[This section left blank: to be completed with the details of the solution proposed by DANTE staff to meet the needs of the GÉANT2 user]

Project:	GN2
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