

TERENA COMPENDIUM OF EUROPEAN NRENs, 2011

QUESTIONNAIRE

TSec(11)009r2

DEADLINE FOR RESPONDING: 15 JULY 2011

INTRODUCTION

The 2011 TERENA Compendium questionnaire is again based on the 2009 version, which has been somewhat simplified over that of previous years. In some areas, additional questions are asked only if a specific situation applies to an NREN or if the NREN offers a specific service. Where relevant, these questions were agreed upon with the relevant Task Force and GN3 Activity Leaders, in order to avoid overlaps and questionnaire overload. Note that where numbers (e.g.: number of connected institutions by category) are too difficult to obtain for some NRENs, estimates of the approximate number are welcome instead.

Unless otherwise noted, please provide the information as valid on 31 January 2011.

Section A: USERS / CLIENTS

A.1 Please give an *estimate* of the proportion of the institutions in each category that are served by the NREN with IP connectivity (the 'market share').

<p>ISCED is the UNESCO scheme for International Standard Classification of Education:</p> <ul style="list-style-type: none"> • Level 6 Second stage of tertiary education (leading to an advanced research qualification). It typically requires the submission of a thesis or dissertation. • Level 5 First stage of tertiary education. Completion of an education at level 3 or 4 is normally required. • Level 4 Post-secondary non-tertiary education. This can include, for example, short vocational training programmes. • Levels 2 and 3 Secondary education (level 2 can also stand for the second level of basic education). • Level 1 Primary or basic education. <p>In theory, your Ministry of Education sends information to UNESCO about the educational sector in your country on a regular basis. Therefore, they should be able to tell you what types of institutions in your country fall in which category. They should also know how many institutions of each category there are.</p> <p>More information is available on the ISCED classification can be obtained from the UNESCO website or by downloading the document (in English).</p>									
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Type of institution	Are you allowed to serve this category of institution?		Place a tick in the column that most closely represents the proportion of each category of institution actually connected by the NREN						Comments (if any)
	YES	NO	unknown or N/A	none or very few	less than half	about half	more than half	all or nearly all	
Universities & Other <i>ISCED 5+6</i>									

Institutes of further education (ISCED 4)									
Research institutes									
Secondary schools (ISCED 2+3)									
Primary schools (ISCED 1)									
Libraries, Museums, Archives, Cultural institutions									
Hospitals (other than University hospitals)									
Government departments (national, regional, local)									

A.2 Please give an *estimate* of the number of institutions that are actually connected in each category with IP connectivity:

Type of institution	Approximate number of connected institutions in each category	Approximate % of this number (if any) that is connected via dark fibre	Comments (if any)
Universities & Other ISCED 5+6			
Institutes of further education (ISCED 4)			
Research institutes			
Secondary schools (ISCED 2+3)			
Primary schools (ISCED 1)			
Libraries, Museums, Archives, Cultural institutions			
Hospitals (other than University hospitals)			
Government departments (national, regional, local)			

A.3 Are there any institutions that are serviced specifically by non-IP connectivity (e.g. by providing a VPN infrastructure)?

A.4 If yes , please give details:

A5 Do you allow institutions to share a connection?

A.6 If yes , please give details:

A.7 Level of IP Connectivity by Institution type:

This table explores the level of connectivity for each type of institution. Please enter a tick or cross to indicate:

- i) The lowest capacity at which an institution in this category is connected
- ii) The typical connection capacity for the majority of institutions in this category of institution
- iii) The highest capacity at which an institution of this category is connected.

EXAMPLE:

	Link Access capacities	less than 10 Mb/s	10 Mb/s or more but less than 100 Mb/s	100 Mb/s or more but less than 1 Gb/s	1 Gb/s or more but less than 10 Gb/s	10 Gb/s or more but less than 40 Gb/s	40 Gb/s or more but less than 100 Gb/s	100 Gb/s or above
Universities & Other ISCED 5+6	LOWEST			✘				
	TYPICAL						✘	
	HIGHEST					✘		

For an explanation of number of institutions please see attached notes	Link Access speeds	less than 10 Mb/s	10 Mb/s or more but less than 100 Mb/s	100 Mb/s or more but less than 1 Gb/s	1 Gb/s or more but less than 10 Gb/s	10 Gb/s or more but less than 40 Gb/s	40 Gb/s or more but less than 100 Gb/s	100 Gb/s or above
Universities & Other ISCED 5+6	LOWEST							
	TYPICAL							
	HIGHEST							
Further education (ISCED 4)	LOWEST							
	TYPICAL							
	HIGHEST							
Research institutes	LOWEST							
	TYPICAL							
	HIGHEST							
Secondary schools (ISCED 2+3)	LOWEST							
	TYPICAL							
	HIGHEST							
Primary schools (ISCED 1)	LOWEST							
	TYPICAL							
	HIGHEST							
Libraries, Museums, Cultural inst.	LOWEST							
	TYPICAL							
	HIGHEST							
Non-university Hospitals	LOWEST							
	TYPICAL							
	HIGHEST							
Government departments	LOWEST							
	TYPICAL							
	HIGHEST							

A.8 Please provide a URL that lists the sites that are connected to the NREN, if available and if not already listed at <https://confluence.terena.org/x/jIA1AQ>:

Remarks or further information regarding this section

Section B: CONNECTIVITY SERVICES

Network & connectivity services

In this section, please provide information about the entire network that is **managed** by your organisation, excluding links outside your national territory.

B.1 What is the number of PoPs on your network?

PoP: A point on the NREN backbone which can connect client networks or aggregations of client networks such as MANs, or external networks.

B.2 How many PoPs offer IP connectivity (in absolute terms)?

B.3 How many PoPs provide optical connectivity (in absolute terms)?

B.4 In how many places do you have non-CPE L3 routing equipment?

B.5 How many circuits (that carry production traffic, primary or backup) do you manage?

B.6 What is the total kilometric length of dark fibre installed on your network?

B.7 What percentage of the total kilometric length of your network does this represent?

B.8 How many kilometres were added in 2010?

B.9 How many kilometres were decommissioned in 2010?

B.10 Do you have your own DWDM equipment or is it a managed service?

Own Managed service

B.11 What is the current typical core usable backbone IP capacity of your network in Gbit/s?

In the context of this questionnaire the term CORE should be taken to mean usable backbone capacity. If your network does not have a backbone core (for instance because it is a star network) please report the maximum capacity into the central node of your network.

Some NRENs have dark fibre with a very high theoretical capacity. In that case, we would like to know the usable IP capacity.

B.12 Please provide a list of the operational external IP connections you had at the end of January 2011 (usable links excluding backup links):

Note that we are interested in the capacity for production purposes, not in any additional links that may be there for the purpose of giving resilience. Some of your capacity to Europe may be used for transiting to intercontinental services; please do NOT subtract for that.

External Network IP Connections	Usable capacity (Mbit/s)
Direct to GÉANT	
Indirectly to GÉANT via a specific project or via another NREN <i>(please specify each connection - adding as many lines as needed)</i>	
Direct to NORDUnet	
Direct to other research locations	

(e.g. other NRENs, CERN, Starlight, Abilene <i>(please specify each connection - adding as many lines as needed)</i>)	
Direct connections to the Commercial Internet excluding Internet Exchanges <i>(please specify each connection - adding as many lines as needed)</i>	
Peerings, connections to Internet Exchanges <i>(please specify each peering - adding as many lines as needed)</i>	
Other – Please specify type	
Total:	

B.13 Future Developments and Trends

Please give a descriptive outline of the major initiatives that relate to the development of the underlying network that you might expect to see on your network over the next 2-5 years. It would be helpful if you could associate an approximate level of confidence to each of these predictions: QUITE CERTAIN, LIKELY, UNCERTAIN.

Initiative / Development	Expected timeframe	Confidence

Bandwidth on Demand (lightpaths or point-to-point dedicated bandwidth services at layer 2 or below)

B.14 Do you currently offer or are you planning to introduce a Bandwidth on Demand service?

- NO
- NO, but we are planning to introduce it within the next year or two
- UNSURE - we want to find out first if there is user demand for it
- YES, we currently offer such a service

If YES, how do you provide Bandwidth on Demand services?

- Through manual provisioning processes carried out by the NOC
- Via a provisioning tool (please specify):
- In another way (please specify):

B.15 If you have any on-line monitoring tool or other on-line information, please provide the URL:

Questions relating to the transition to IPv6

B.16 For your NREN, do you foresee any IPv4 address space shortages or problems in the foreseeable future? If so, please give details:

- B.17** For your client institutions, do you foresee any IPv4 address space shortages or problems in the foreseeable future? If so, please give details:
- B.18** Is a shortage of IPv4 addresses affecting adding new clients or service development (e.g. virtual connectivity services)?
- B.19** How many clients (as % of your total number of clients) are provided with IPv4 services only?
 How many clients (as % of your total number of clients) are provided with dual IPv4/IPv6 services?
 How many clients (as % of your total number of clients) are provided with IPv6 services only?

Cross-Border Fibre (CBF)

B.20 a) CBF links in use as at January 2011

End points	USAGE Testing, Production, Project, Backup .	Number of lambdas (λ)	Capacity of each λ (Gb/s)	Date entered service
<i>(please add one line for each CBF)</i>				

b) Planned CBF links

End points	USAGE Testing, Production, Project, Backup .	Number of lambdas (λ)	Capacity of each λ (Gb/s)	Planned date
<i>(please add one line for each CBF)</i>				

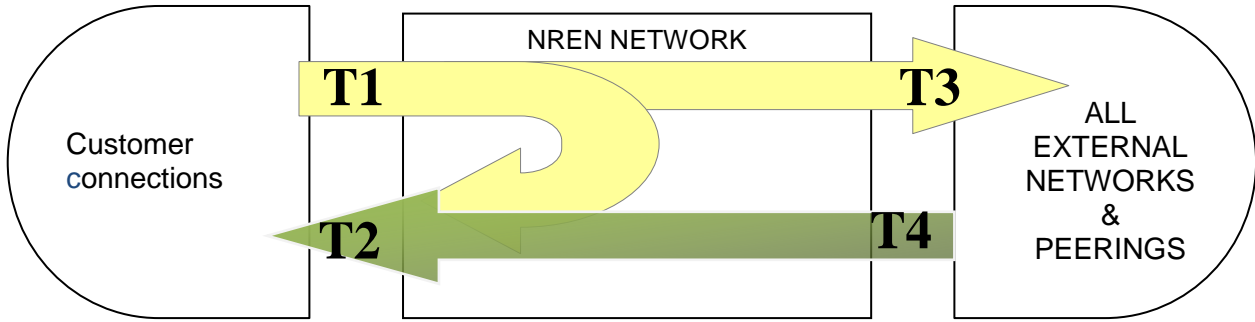
eduroam

To ascertain level of eduroam deployment, we will use the official eduroam database as a source of information. In order that the compendium reflects an accurate picture of the deployment in your country, please ensure that the entries from your NREN in the database are up-to-date (see <http://monitor.eduroam.org/> for more information).

Remarks or further information regarding this section

Section C: TRAFFIC

In this section, we propose a distinction between different types of traffic by source or destination. Please take a look at the figure below, which attempts to illustrate the distinctions in terminology.



T1 – all IP traffic from customer sites and the NREN

T2 – all IP traffic to customer sites and the NREN

T3 – all IP traffic to external networks

T4 – all IP traffic to the NREN

External traffic = all traffic to GÉANT, the commercial Internet, Internet exchanges, etc. (made up of T3 and T4 above)

C.1 Please supply an estimate of the total amount of external traffic in Terabytes in 2010 as defined in the picture above (note that given the definition as outlined in the graph above, T1+T4 should be equal to T2+T3, unless there is a special situation in your NREN – in which case, please explain):

flow	TOTAL IP Traffic during 2010 (Terabytes)	Volume of IPv6 Traffic if known during 2010 (Terabytes)	percentage of total IP traffic to / from commercial internet (%)	Percentage of your commercial internet traffic that is exchanged freely through settlement-free peering agreements
T1				
T2				
T3				
T4				

C.2 What was the volume of traffic to/from your network in January 2011 in Terabytes?

flow	TOTAL IP Traffic during JANUARY 2011 (Terabytes)	Volume of IPv6 Traffic if known During JANUARY 2011 (Terabytes)	percentage of TOTAL IP traffic to / from commercial internet (%)	Percentage of your commercial internet traffic that is exchanged freely through peering agreements
T1				
T2				
T3				
T4				

Network Congestion

We would like to get your best estimate of congestion levels. For example, if the MRTG trace of an access line is at the line bandwidth for long periods, or if the router interface shows lots of packet drops, then there's congestion in the access network. That one is obvious. But how do you know if the bottleneck (if there is one) is in the campus LAN? You may need to look inside the campus network, or at least at the ethernet port of their edge router. If a big university cannot use more than ~4Mbps of an E3 or STM-1 access line, they may be limited by a 10Mbps ethernet somewhere in their LAN.

We do expect NRENs to have some idea of the state of their network, particularly on the existence and location of bottlenecks. This could come either from constant monitoring or by using tools like clink or pingplotter.

C.3 Perceived congestion (if any) on your IP network. You are not expected to give precise numbers.

Please give a rough indication of the percentage of institutions that experience congestion because of bottlenecks at the different levels (ie Campus, Metro/Regional Network, Access, Backbone or on external links

		Campus LAN	Metro / Regional Networks	Access network	NREN backbone	External links
% of institutions experiencing no or very little congestion	☺					
% of institutions experiencing some or moderate congestion	☹					
% of institutions experiencing serious congestion	☹					
<i>each column should total 100%</i>						

Performance Monitoring and Management

- C.4 Do you have traffic statistics on your website? YES NO
- C.5 If yes, please provide the URL:
- C.6 Do you offer other tools for monitoring or troubleshooting the network?
- C.7 Do you have an online topology map of your network? YES NO
- C.8 If available online please give the URL:
- C.9 Do you have an online weather map of your network? YES NO
- C.10 If available online please give the URL:

Optical Circuits

- C.11 Are you offering lambdas (wavelengths) to your customers?
 YES NO Planned

If YES:

- C.12 How many static lambdas were live at the end of January 2011?
- C.13 How many dynamic lambdas were live on 31 January 2011?
- C.14 Is there a separate charge for users that have ordered lambdas from you?
- C.15 How long does it take you, on average, to provision a static circuit?
- C.16 How many lambdas do you provision that leave your country or NREN?

Remarks or further information regarding this section:

Section D: TECHNICAL SERVICES

Connectivity

D.1 Other Technologies

Which other services are used in your access network?

FTTH - Fibre to the Home
FTTO - Fibre to the Office

	Production	Under trial	Planned	Not planned	Number of client institutions
FTTH/FTTO					
DSL					
WLAN					
3G – via selected mobile network operators (MNO)					
3G – via mobile virtual network operator (MVNO)					
3G – via APN (access point name)					
Satellite					
Other licensed spectrum					
WiFi off campus – using eduroam					
WiFi off campus – using MNO					
Other unlicensed spectrum					

D.2 Which other technologies (not covered in section B) are made available by you to individual end users?

Security Services

D.3 Are you using a structured format for the exchange of computer incident information (e.g. X-ARF)?
 YES NO Planned

D.4 If yes or planned: which one?

D.5 Are you using network devices for addressing security threats (e.g. routers, firewalls, IDPSs, etc.)?
 YES NO Planned

D.6 If yes or planned: which ones and for what purpose?

D.7 Do you take measures to reduce spam activities (e.g. DNSBLs, DNS SPF records, etc.)?
 YES NO Planned

D.8 If yes or planned: which measures?

D.9 Have you deployed any Honeypots?
 YES NO Planned

D.10 If yes or planned: which ones and for what purpose?

DNSSEC

D.11 Do you have any activities relating to DNSSEC?

YES - please choose from the options given below (multiple answers possible):

- We operate a signed country-code top-level domain (ccTLD)
- We operate a signed zone for our NREN
- We operate signed zones for our constituency as a service
- We operate validating DNS resolvers for our constituency
- Other (please specify:)

NO

- We do not operate any DNS infrastructure so there is no need for us to do this
- We feel DNSSEC is not important enough for us at this time
- Our constituency is not interested in the topic
- Other (please explain: ...)

Authentication and Authorisation Infrastructure

- D.12 Is an AAI provided by the NREN?
 Currently deployed Planned Not planned
- D.13 Do your users have access to a web single sign-on federation? YES NO
- D.14 If so, do you operate it? YES NO
- D.15 Does your federation interfederate?
 NO
 If no: do you plan to interfederate in 2011?
 YES: please specify how:
 NO
 YES: Kalmar YES: eduGAIN YES: other (specify):
- D.16 You are urged to complete or update the REFEDS survey as necessary at
<https://refeds.terena.org/index.php/Federations>

2-factor authentication¹

- D.17 Do you have any activities in the area of 2-factor authentication? If so, please choose from the options given below (multiple answers possible):
- D.18 The NREN and its staff use 2-factor authentication for access to (some of) its services
- D.19 The NREN has research activities relating to 2-factor authentication (please describe:)
- D.20 The NREN offers 2-factor authentication services to its constituency (please describe:)
- D.21 Other (please explain:)
- D.22 What kinds of services are protected by 2-factor authentication at the NREN or its constituency?
- D.23 Do you know of any activities related to 2-factor authentication within your constituency but not provided by the NREN? If so, please describe:

Digital Certificates

- D.24 Do you provide digital certificates for your community?
 Currently deployed Planned Not planned
- D.25 Do you operate a Certification Authority independent of or in addition to the TERENA Certificate Service?
 YES NO

¹ For more information, contact TF-MNM or visit <http://www.terena.org/activities/tf-mobility/>

- If YES:
D.26 This CA is operated by us
D.27 If so: is the CA accredited by a PMA?
 NO YES
If yes: IGTF eduPKI PMA others:
 The certificates are provided by a commercial CA
 The certificates are provided in another way
- D.28 Does the CA issue server certificates? YES NO
D.29 If YES: number of valid certificates outstanding on 31 December 2010:
D.30 Does the CA issue personal certificates? YES NO
D.31 If YES: number of valid certificates outstanding on 31 December 2010:
D.32 Does the CA issue code signing certificates? YES NO
D.33 If YES: number of valid certificates outstanding on 31 December 2010:
D.34 Does the CA issue CA certificates? YES NO
D.35 If YES: number of valid certificates outstanding on 31 December 2010:
D.36 Does the CA issue short-term certificates? YES NO
D.37 If YES: number of valid certificates outstanding on 31 December 2010:

Housing, Storage, Hosting and Content Delivery Services

This table explores the level of deployment for each type of service. Please enter a tick or cross to indicate if services are currently deployed, planned or of no interest to your NREN.

		Currently deployed	Planned	Not planned
D.38 D.39	Is there a national storage service? If YES, who provides it? <input type="checkbox"/> the NREN <input type="checkbox"/> another organisation, please specify:			
D.40	Do you offer a commercial storage service (e.g. Amazon) through a brokered deal?			
D.41	Hosting of commercial content servers or commercial content on the NREN network (e.g. Akamai)			
D.42	Video or multimedia content servers for use by NREN sites			
D.43	Mirroring of content from outside the NREN network			

- D.44 Any further remarks or information regarding storage, hosting and content delivery services:

Voice services

		Currently deployed	Planned	Not planned
D.45	Does your NREN run VoIP as a centrally managed service for institutions and/or users?			
If you are currently running a VoIP service:				
D.46	Do you provide VoIP to PSTN services for your institutions?			
D.47	Do you provide inter-organizational VoIP services for institutions on your network?			

D.48	Are E.164 numbers – reachable in/through your VoIP network – announced/propagated in ENUM or NRENUM.net?			
D.49	Do you provide VoIP for individual users?			
D.50	Do you provide mobile phone services for individual users?			
D.51,D.52	If current or planned, please specify what service you offer:			

Video- and webconferencing

		Currently deployed	Planned	Not planned
D.53	Do you provide a centrally managed videoconferencing service?			
	If you are currently running such a service:			
D.5	Is there a centrally provided user support?			
D.55	Is ITU-T H.323 based videoconferencing supported?			
D.56	Is Session Initiation Protocol (SIP) based videoconferencing supported?			
D.57	Is H.323 Global Dialing Scheme (GDS) access supported?			
D.58	Do you provide High Definition (HD) MCU services?			
D.59	Do you offer centrally provided recording and streaming of videoconferences?			
D.60	Do you provide a centrally managed webmeeting desktop service?			
	If you are currently running such a service:			
D.61	Which platform do you use? <input type="checkbox"/> Adobe Connect <input type="checkbox"/> Cisco <input type="checkbox"/> Others, please specify:			
D.62	Do you provide a mobile videoconferencing service (e.g. using Android or on iPhone)?			

Supporting Group Collaboration

Sometimes the term 'Virtual Organization' is used to refer to collaborative groups. Such groups can serve individuals from more than one home institution, so the group is not bound to a single institution.

		Currently deployed	Planned	Not planned
D.63	Does your NREN run a platform of bundled services for collaborative groups of users?			

If you are currently running OR planning such a platform:

- D.64 What size are your target groups? small (up to 7)
 medium (up to 20)
 large (up to 100)
 larger

D.65 What services are/will be bundled into the platform?

- Wiki
 Document Store
 Calendar
 Appointment Planning
 Mailing List
 Other, please specify:

D.66 Are/will the bundled services be federated?

- YES
 NO

D.67 What is the charging model for the bundled services?

- they are free
 they are partially subsidised
 all costs are fully recovered

D.68 Please describe how any tariffs are applied:

Multimedia repositories and streaming

		Currently deployed	Planned	Not planned
D.69	Does your NREN run a multimedia content repository service?			
If you are currently running a multimedia content repository service:				
D.70	Please give the URL of the repository:			
D.71	Is video sharing/upload by users possible?			
If current or planned				
D.72	Who can upload content to the repository? <input type="checkbox"/> NREN only <input type="checkbox"/> mostly everybody (also students) <input type="checkbox"/> mostly lecturers/teachers/researchers <input type="checkbox"/> limited set of people per institution (e.g. people responsible for multimedia)			
D.73	Is metadata exchange with external content aggregators possible?			
D.74	If current or planned, what			

	technology/protocol is used for metadata exchange? <input type="checkbox"/> OAI-PMH <input type="checkbox"/> REST <input type="checkbox"/> RSS <input type="checkbox"/> Open API based <input type="checkbox"/> Other, please specify: ...			
D.75	Is live streaming service offered?			
D.76	How many objects are stored in your repository?			

e-Learning

D.77 Do you provide an e-learning service?

- Currently deployed
 Planned
 Not planned

D.78 If current or planned, please provide URL of your e-Learning service:

D.79 Please describe e-Learning standards that are followed:

Networked e-Science Resources

		Currently deployed	Planned	Not planned
D.80	Is there a national computing service? D.81 If YES, who provides it? <input type="checkbox"/> the NREN <input type="checkbox"/> another organisation, please specify:			
If you currently provide such a service, which of the following do you provide for your national research community?				
D.82	Dedicated point-to-point IP circuits			
D.83	Storage facilities run by the NREN			
D.84	If current or planned: <input type="checkbox"/> This storage is distributed <input type="checkbox"/> This storage is centralised			
D.85	Compute CPUs provided by the NREN			
D.86	Archival storage (e.g., tape) for Grid users			
D.87	Other – please state			

D.88 Have you connected other e-Science resources to your NREN (e.g. telescopes, cubic kilometre arrays, etc)?

- Currently deployed Planned No

D.89 If current or planned, please specify what kind of resources and give us links to the services provided, if any:

Clouds

- D.90 Do you offer cloud services?
 Yes Planned Not planned

If YES:

- D.91 Do you offer cloud services provided / leased by a commercial cloud provider to your NREN?
 Google apps
 Microsoft
 Rack space
 Services developed and hosted by the NREN
 Other (please list):

What is the size of your cloud service offering? Please specify:

- D.92 What is the number of cores?
D.93 What is the storage volume?
D.94 How are your cloud services located?
 They are in a single facility
 They are distributed
- D.95 To whom is this service addressed (NOCs, end-users, laboratories, etc.)?
- D.96 What kind of resources do you offer?
 Computing
 Storage
 Software as a service
 Other, please specify: ...
- D.97 How do users manage the virtualized resources allotted to them?
- D.98 How are resources allocated to users?
 First come first served
 Through a quota mechanism
 Via a system of user credit
 Other: ...
- D.99 How do you manage the virtualized infrastructure?
 We do this ourselves
 We have a contract with a commercial company
 We have rebranded a commercial service we have a contract with
 In another way:
- D.100 Do you offer permanent storage outside the individual virtual machines?
 YES NO
- D.101 Do you provide distributed computational frameworks (e.g., Hadoop) to your users?
 YES NO
- D.102 What cloud Storage interfaces do you provide to users?
 Amazon S3 or other with S3-compatible API
 None
 Other: please specify
- D.103 Are the virtualized services accessible via an API?
 YES NO
- D.104 If yes, which one(s)?
- D.105 Have you developed management tools for your services?
 YES NO
- D.106 If yes, are they available, and from where?

D.107 What kind of Cloud Storage services do you use as your own storage back-end?

Amazon S3 or other with S3-compatible API

None

Other: please specify

User interaction

D.108 Do you organise national user conferences? YES NO

D.109 Do you organise training courses and/or workshops? YES NO

Further services

D.110, D.111, D.112 Do you provide any broker or proxy services?

YES, joint procurement of software and software licenses

YES, joint licensing for digital libraries

YES, joint procurement of equipment or negotiation of preferential rates for users or end users

YES, other services (please list:)

Planned:

NO

D.113/D.114 Do you provide premium professional services?

YES, consultancy services

YES, security audits

YES, other services (please list:)

D.115 Are you planning to introduce any other new services in 2011? If so, which?

Remarks or further information regarding this section:

Section E: FUNDING AND STAFFING

Please do not hesitate to use as much space as needed here to clarify your national situation!
Please let us know if you think your budgetary situation is special in comparison to other NRENs. That can help in presenting the data to the outside world in a way that at least shows the complexities of working with this figure.

E.1 Is your budget year equal to the calendar year? YES NO

E.2 If NO, please provide the dates between which the budget runs:

E.3 What was your organization's total budget for 2011 (or 2010/2011)?
(please use millions of euro at the current exchange rate)

E.4 How much of the 2010 budget was dedicated directly to NREN activities?

(please use millions of euro at the current exchange rate)

*Note NREN Activities: Some NRENs provide services **only** to the Research or Education communities in their country. Others provide services to other sectors as well, for example because they administer the country-code tld.*

In order to permit like-for-like comparisons in this section, please regard 'NREN-Activities' as those activities For the sake of comparability, we would like to ask you to provide information only about the activities for the Research or Education communities in your country in this section.

E.5 What is your organization's total budget for 2011 (or 2011/2012)?
(please use millions of euro at the current exchange rate)

E.6 How much of the 2011 budget is dedicated directly to NREN activities?

(please use millions of euro at the current exchange rate)

E.7 Is your organization able to develop multi-annual budgets or multi-annual plans? YES NO

E.8 If YES, please briefly describe how this operates

E.9 Do you make your corporate strategy and/or business plan available on-line? YES NO

E.10 If so, please provide the URL:

E.11 What changes, if any, do you foresee in your funding base in the next 3 to 5 years?

E.12 Please give an estimate of the sources of your NREN-related income (for 2010 or 2010/2011)

Source	Percentage of income
Users/clients	
Government/public bodies	
The EU (e.g. for Framework Programme projects)	
Other sources	
All of the above should total to 100%	

E.13 Does this budget include the amount of the EU subsidy for GN3 that your NREN receives? YES NO

E.14 How do you charge your clients?
 We do not charge them directly
 We charge a flat fee, based on bandwidth
 We charge a traffic-based fee
 We use a combination of flat fee and usage-based fee
 Other (eg. some, but not all, please explain):

E.15 What is the total number of paid staff directly employed by your organisation (not outsourced)?

Please do not include staff that is entirely working for activities not directly related to networking for research or education, eg. the budget for activities such as Domain Name registration services for parties outside the NREN.

About subcontracted staff: this may be difficult for some to answer, for example because you have subcontracted services and do not really need to know how many FTEs are needed for providing the service. If this is the case, then please try to give an estimate and note your problems in the remarks section. We need this information in order to allow some comparison between NRENS.

E.16 What is the number of staff engaged in NREN activities (*see explanation above*)?

E.17 Some of the staff could be working part-time. We would like to know the number of staff as given above, but in full-time equivalents (FTEs):

E.18 On average, how many people (in FTE) are working for the organisation as subcontractors or on outsourced basis (for NREN activities)?

E.19 Please provide a breakdown of the staff engaged in NREN activities (in FTEs):

	Breakdown of staff working on NREN activities directly employed by your organisation:	Breakdown of personnel working on NREN activities but employed by others (outsourced):
NOC		
Other Technical staff		
Administrative and financial staff		
User support and training staff		
Others not included elsewhere		
Total (<i>should be the same as above</i>)		

E.20 Please give an indication of the main expenditure categories in your budget (for 2010 or 2010/2011).

Expenditure category	Percentage
Salaries and general office costs	
Equipment (switches, routers etc.)	
Transmission capacity (IRUs, leased lines, optical equipment etc.)	
Other	

E.21 Please indicate how much of the following network levels (equipment + transmission capacity + manpower) are paid for through the NREN budget (and not by some other body):
(please mark n/a if this level does not exist in your network)

Level	Percentage of your budget that is spent on this	Estimated percentage of the total cost of this that is paid through the NREN budget
External connections		
NREN backbone		
Access network		
Metropolitan or regional networks		
Campus LAN		

Remarks or further information regarding this section:

Section F: BASIC INFORMATION

- F.1 Full name of the organisation (in English):
- F.2 Full name of the organisation in the national language(s) (*please use the Latin alphabet*):
- F.3 Abbreviation in English (if applicable):
- F.4 Abbreviation in the national language(s):
- F.5 Visiting address:
- F.6 Postal address (if different from above)
- F.7 Country:
- F.8 Fax:
- F.9 Phone:
- F.10 General e-mail address:
- F.11 Website:
- F.12 Year the first research network operations started:
- F.13 Year in which research networking was started as a dedicated organisational unit:
- F.14 Year in which the NREN was founded in its current form:
- F.15 If you have a short description of the history of your organisation on your website, please provide a URL to it:
- F.16 Form of organisation:
 Separate legal entity in its own right
 Not a separate legal entity and also not part of a larger organisation
 Not a legal entity of its own, but part of a larger organisation.
- F.17 If so, please give the name of the parent organisation (in English):
- F.18 What is the formal relationship between your organisation and your government?
 We are a government agency or part of a ministry
 The Government appoints at least half of the members of our Governing body
 There is an indirect relationship (*for example if at least half the members of your Governing body are appointed by research and education institutions that in itself are (largely) government-funded*)
 No formal relationship Other. If so, please explain:
- F.19 Please briefly describe the governing structure of your NREN (in terms of members, governing body, decision making process, etc.):
- F.20 If you have a description of your governing structure on your website, please give the URL:

F.21 Do you have a Connection Policy	<input type="checkbox"/> YES <input type="checkbox"/> NO
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F.22 If YES – Please give the URL for the Connection Policy:	
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F.23 Do you have an Acceptable Use Policy?	<input type="checkbox"/> YES <input type="checkbox"/> NO
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F.24 If YES please provide the URL for the AUP:

F.25 Has your AUP been changed in the last year? YES NO

F.26 If YES, please summarize briefly how it has changed

F.27 Do you have a Security Policy? YES NO

F.28 If YES – Please give the URL:

F.29 Do you request your connected sites to sign Terms and Conditions in addition to the CP and AUP YES NO

F.30 Does your NREN have an environmental policy for efficient use of power, recycling etc.? YES NO

F.31 If available online please give the URL:

F.32 Has your NREN carried out a greenhouse gas audit, or does it plan to do so?
 Yes No Planned

F.33 We would appreciate it if you would be able to give us a short description of major changes that occurred in your organisation and/or services during the past year or that you foresee for the coming year (structural changes, changes in your mandate or remit, major technology upgrades, changes in the user base, etc.)

F.34 We would be interested in receiving your feedback, both regarding the Compendium 2010 and this questionnaire. Both general comments and specific comments (e.g. about questions that you found difficult to understand or to answer or of limited value) would be appreciated.

F.35 Who can we contact with further questions regarding the Compendium?ⁱ
(First name, last name, e-mail address:)

Remarks or further information regarding this section:

ⁱ This information will not be made publicly available.