Service Level Agreement (SLA) for Forskningsnettet and other DeiC services

Version 2019-01

This document is an appendix to "Terms for connection to Forskningsnettet" and definitions etc from this document are also used here.

This SLA (Service Level Agreement) is the agreement DeiC has entered with the connected institutions stipulating what levels of service the institutions can expect from DeiC.

Does this document constitute an agreement at all?

Since most connected institutions have never signed a contract as they are otherwise used to with conventional suppliers, they have the experience that it is unclear whether there is actually an agreement and what the detailed content of that agreement is.

DeiC is not a conventional supplier, but rather a buyers' association and a collaboration project, such as defined the Danish Finance Act §19.45.02 and further in the terms, to which this document is an appendix. When connected to Forskningsnettet, the institution has an *obligation* to pay for the services and a *right* to receive these services. This continues until the institution decides to terminate the connection.

It is a collective agreement, the content of which is decided by the board of directors of DeiC, common to all connected institutions, which is why we do not need to enter separate agreements with the connected institutions unless there is a need to agree upon exceptions to the – otherwise common – terms.

The complete agreement can be found in the document "Terms for connection to Forskningsnettet" and the appendices mentioned in this document. The current version of this document and appendices can be found on the DeiC website www.deic.dk.

Service levels for services in operation

Relative uptime is the ratio between the time, the service actually has been available and the time where the service should be expected to be available (period of normal operation). This is calculated for each calendar quarter.

Service	Relative uptime	Periods excluded from normal operation	Response time until problem solving is commenced	Rectification time for most common problem types
National optical backbone	100%	Service windows, announced one month ahead. 2 or less per year	1 hour	All common problems are covered by redundancy
Internet traffic on optical network infrastructure	100%	Ditto	1 hour	Ditto

National peering	100%	Ditto	1 hour	Ditto
NORDUnet internetforsyning	99,995%	Not stated	Not stated	Not stated
Network connection realized by full redundancy (*)	100%	Service windows, announced 2 weeks in advance	1 hour	All common problems are covered by redundancy
Non-redundant network connections	99.7%	Ditto	4 hours	24 hours
Central DNS	99,9%	Ditto	1 hour	2 hours
All other services, unless specifically mentioned in the terms of the service.	99,5%	Ditto	2 hours	12 hours

(*) Full redundancy means that the two connection have the same capacity or at least that the small connection in all instances has a sufficient capacity to carry all the traffic.

Service levels for network operations support (NOC/Netdrift)

All services in operation are under automatic and continuous surveillance. It is the aim of this surveillance to be sufficiently thorough, such that it is possible from this surveillance alone to determine whether a service is actually operational.

This does not, however apply to dark fibre connections and alien wave connections where there is no DeiC-operated equipment at the ends. For these services, the response to operational issues is reliant upon the reports from the users.

Alerts and messages regarding the operation is sent to users via Serviceinfo, where users can configure their subscriptions on www.serviceinfo.dk. Measurements and statistics are published on the DeiC webpage www.deic.dk.

The NOC may be contacted via mail to netdrift@deic.dk, which issues receipts from the track-and-trace system. These receipts may be a few minutes delayed due to greylisting and other actions performed by the spam filter. Response to these requests can normally only be expected during opening hours, which is 9:00-16:00 Monday-Friday.

The NOC may also be contacted during opening hours at 35 888 222. This number is a group call to the network operations staff, and it may occur that all staff members on duty are busy, and besides transference to the department secretary, there is no queuing system.

For institutions, who themselves have 24/7 operations, DeiC has a telephone number that is answered 24/7, which can be used in urgent situations to report problems. This is, however, no guarantee in itself that all problems can be solved round the clock.

Escalation may be done to Head of Network Operations Jan Ferré (2160 8012) or to Head of NREN Martin Bech (2176 0625).

As we have chosen so far not to have a proper help-desk dispatch function in front of the NOC staff, it is not possible to measure and manage the response time for telephone calls to the NOC, but it is the aim that no calls are lost, and as far as that objective is achieved, the response is immediate.

When a problem report has reached a member of the NOC staff (who has the user on the phone or has reached the relevant mail), this point in time counts as the beginning of the response time of the particular problem, just as if the problem was detected by the automatic surveillance. The targets for response time and time to rectification of the problem then follows the SLA for the service.

Support for other services

Some services (such as Adobe Connect and WAYF) are not supported from the NOC, but directly by the staff responsible for the operation of these services. The support contact information for these services are listed under the description of each service on the DeiC website www.deic.dk. There is also a summary of service contact information on www.deic.dk/support.

How does DeiC ensure the service levels?

As much as possible, DeiC seeks to base the fulfilment of the agreed service level on agreements with its sub-suppliers. For the international network connections, this is based on NORDUnet, with which DeiC has a collective SLA together with the other Nordic NRENs – very much in the same way as DeiC has an SLA with its connected institutions.

With most of the other sub-suppliers to DeiC, there are also SLAs. The service levels in these agreements are not necessarily all at precisely the same level as in the similar SLAs DeiC has with its institutions. There is nothing unusual in that – it just means that DeiC in some instances have a responsibility that is DeiC's alone, and that DeiC must compensate by for instance more redundancy.

What happens if the service levels are not met?

In many contracts with standard commercial suppliers it is customary that this results in payment of a penalty. The intention of this from the customer is often not so much the money in itself, but rather as a means of ensuring that management at the supplier is involved in the problem.

The payment model for Forskningsnettet does not include a penalty scheme, but every breach of the SLA is reported to DeiC management together with a full account of the incident and corrective actions taken. This ensures the management involvement and contribution to the continuous improvement of quality.

The connected institution can always contact DeiC for a root cause analysis and insight into the corrective actions taken, to the extent this is not apparent in the messages sent out via Serviceinfo.

How is this SLA established?

Since a board decision in 2009, there has been an SLA for all services in operation, the details of which is decided by DeiC management. Suggestions for changes to the SLA by the institutions can be sent to DeiC for consideration and decision.