

Agreement System for Health Data Net

Version 2.0

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©UNI•C April 2005

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1 Introduction

A Web-based agreement system for concluding bilateral agreements has been developed for the Health Data Net.

This agreement system is of vital importance for the security of the Health Data Net, as the agreement system will generate the filters for the central router and for printing on the individual connections.

The data provider (service) and the data user (client) can indicate which servers (IP address) may be accessed by which clients (IP addresses) and with which service or protocol (port numbers). After an agreement has been concluded in the Web-based agreement system it must be approved by both parties before connections are opened. This is done, by approving the agreement electronically in the agreement system.

In other words, only parties who have concluded and approved an agreement, which is registered in the agreement system of the Data Health Net will be able to connect via the Health Data Net.

The Health Data Internet address is:

<https://aftale.medcom.dk>

2 The agreement system

In the agreement system, it is possible to be registered as either a UNI•C administrator or as an institutional administrator. Here, institution is defined very broadly, making it possible for an individual institution such as KPLL¹ or for an entire county to be registered.

UNI•C administrators and institutional administrators have different rights.

UNI•C administrators can:

- register an institution
- revise an institution
- register an administrator
- revise an administrator
- send information to an institution
- add new services and protocols
- display all agreements
- generate/revise status reports

Institutional administrators can:

- register a server
- register new clients
- conclude agreements
- view own agreements
- register new location numbers
- revise own data

The Health Data Net (UNI•C) registers the institution and administrator. The institution (e.g. a county) is registered in connection with establishing a VPN connec-

¹ Copenhagen General Practitioners' Laboratory

tion to the Health Data Net, and the institution is assigned its own IP addresses on the Health Data Net.

The institution informs UNI•C who the administrator is to be, and UNI•C registers the administrator.

There may be several administrators at an institution. An administrator is assigned a user name and a password and may now conclude agreements and register servers and clients in the Web-based agreement system. In connection with concluding an agreement with an institution, an administrator can choose among the institutional servers, his/her own clients, and the protocols, which have been specified for the server. The administrator who wishes to conclude an agreement selects the server, client and protocol (port number). It is a precondition that he/she is the administrator for a client or a group of clients. When an administrator registers an agreement by entering "Register agreement", the agreement system will register the existence of an agreement, which requires approval by both parties. If an administrator is responsible for a client, he/she can choose to approve the agreement immediately. Otherwise, when the parties are in the menu or login, a message will appear in the menu indicating that an agreement is awaiting approval. An agreement is not effectuated until both parties have approved it in the agreement system.

3 Agreement system for administrators

3.1 Login

The agreement system is accessed on the Internet at: <https://aftale.medcom.dk>. The login screen is shown in Chapter 5. The user can now login, after which the menu appears (see menu screen in Chapter 7). The administrator receives the user name and password from the agreement system.

Administrators can also view the status of the Health Data Net.

3.2 Health Data Net status

The screen in Chapter 6 shows the status of the Health Data Net. The curves show the response times to the central router. The curve shows that response times are generally much less than 0.01 second, and that there has been no down time during this period.

Here, users can also read important messages regarding the operation status of the Health Data Net. Local administrators can distribute operation status messages by sending emails to the mail list at: drift-status@sdn.uni-c.dk

3.3 Menu

After login, the administrator can choose among a number of options (see picture of screen in Chapter 7).

- *Approval:* You have X new agreements for **approval**
- **Register/revise server**
- **Register/revise client**
- **Agreement**
- **See own agreements**
- **Register new location numbers**
- **Revise own data**

3.4 Approval

The text will only be printed if there is an agreement, which has not been approved by both parties. The administrator now clicks “Approve” after which it is

necessary to approve or reject the agreement. The following options are available for each agreement requiring approval:

- Approve agreement
- Reject agreement
- Agreement withdrawn

If a concluded agreement is rejected by the counterpart, a text will appear in red. The administrator then has two options:

- Revive agreement
- Reject agreement

3.5 Register new server (See picture of screen in Chapter 8)

To register a server on the Health Data Net, an administrator must first indicate the name, which will be used for the server on the list of Health Data Net servers. The name may be identical to the DNS name, but this is not obligatory. The address areas on the Health Data Net, which have been assigned to the user, are then shown (here, only one) and the administrator must subsequently select the net for the server and the SDN IP address in the next section. The SDN IP number is the final digits (after the last dot) in the SDN IP address. The net has been selected above, which is why only the three final digits are necessary. The IP addresses, which have already been used, can be seen to the right. As a new feature, the administrator must indicate which service is being opened up to the server. This will help the person entering into an agreement to select the correct service.

The DNS name is the domain name for the server on the Health Data Net, and can in future be used in connection with notices in the central MedCom DNS.

(SDN is the Danish abbreviation for Health Data Net)

3.6 Register new client (See Chapter 9)

The administrator chooses a client name, which becomes the name of the client in the agreement system of the Health Data Net, i.e. the name, which is used when agreements are concluded between a client and a server. The SDN IP address is the final digits (after the last dot) in the IP address to which the clients' local addresses are NAT'ed in the Health Data Net. Normally, a Port and Address Translation (PAT) are combined to compose the SDN IP address for a client.

It is also possible to register an entire net if all of an institution's Health Data Net IP addresses are to be used as client addresses. The list to the right indicates which IP addresses have already been used.

3.7 Agreement (registering an agreement)

To register an agreement, the administrator selects "Agreement". Pictures of the screen are not shown to avoid distribution of internal information regarding the Health Data Net.

In registering an agreement, the administrator must first select the institution with the server, which the administrator wishes to access. When the institution has been selected, the institution's servers, which are connected to the Health Data Net are shown, enabling the administrator to select the server which is to be accessed. The client is selected on the next screen. Here, the administrator can choose among his or her own clients. Having indicated the client, the next step is protocol selection. Here, it is very important to choose the correct service or protocol (port number). The mandatory protocol is indicated for a number of servers, and it is only possible to choose among the protocols, which are indicated. If more than one protocol is indicated, please confer with the institution, which provides the service to which access is desired. Enter expiration data and any comments in the last section of the screen (Select service). Click "Next". The agreement will now be displayed. If it is correct, click "Register agreement".

Thus, to register an agreement, the administrator must make the following selections:

- institution (with the server to be accessed)
- server (the screen displays the institution's servers)
- client (the screen displays the institution's own clients)
- service or protocol (port numbers). The service will subsequently be printed in connection with the selected server, and it will only be possible to choose among the protocols indicated
- expiry date
- "Register agreement"

3.8 See own agreements

The administrator does not receive a list of his or her own agreements. The system indicates if an agreement is "Not approved", "Approved", or "Expired". The

agreement automatically changes status from “Not approved” to “Approved” when both parties have approved an agreement.

3.9 Register new location numbers

This window is only for use by VANS providers who operate a Smart Host, and who need to enter location numbers such as domain names in the central DNS.

3.10 Revise own data

Administrators can revise their own data and change passwords.

3.11 Agreement system sends email

Agreement concluded:

When an agreement has been concluded, the agreement system sends an email to the counterpart containing following text:

Agreement No. XXXXX

New agreement for server XXXXX

From institution XXXXX

Please approve

Agreement approved:

When both parties have approved the agreement, the agreement system sends a message to both parties confirming that the agreement has been approved.

Agreement rejected or Agreement withdrawn:

The counterpart receives a message indicating that an agreement has been rejected or withdrawn.

3.12 Delete a valid agreement

If a valid agreement will no longer be used, a message is sent to the UNI•C requesting that the agreement be deleted. The message is sent to tilslutning²@sdn.uni-c.dk

² connection

4 Agreement system for UNI•C administrators

UNI•C administrators have an enlarged menu that enables selection of

- Register institution
- Revise institution
- Register administrator
- Revise administrator
- Send information to institution
- Add new services and protocols
- Display all agreements
- Generate/revise status reports
- Register server
- Register new client
- Agreement
- Register new location numbers
- Revise own data

Register institution (see picture of screen in Section 3.1)

In connection with registering an institution, it must be decided how many SDN IP addresses the institution is to have. The institution provides the name of its domain, the name of the institution, as well as the IP address of its external router and its Shared Secret router.

Register administrator (see picture of screen in Section 3.2)

There can be several administrators per institution. The administrators' addresses, email addresses and telephone numbers must be entered.

When an administrator has been registered, the administrator receives a user name and password, enabling the administrator to register servers, clients and agreements.

Send information to institution

It is possible to select an institution and retrieve all the information, which is listed on the institution, as well as to send a printed version to the IT manager at the institution.

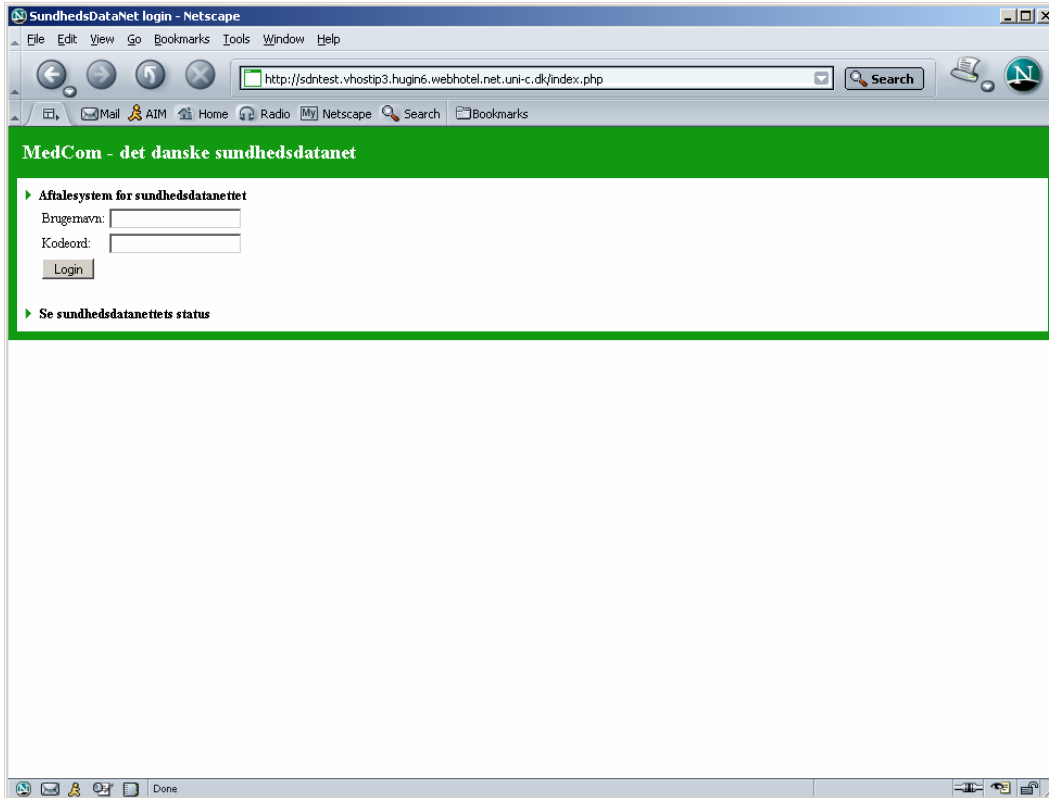
Add new services and protocols

As the need for new services or protocols (port numbers) gradually arises, they will be entered by the UNI•C administrator, enabling them to be selected in connection with concluding agreements.

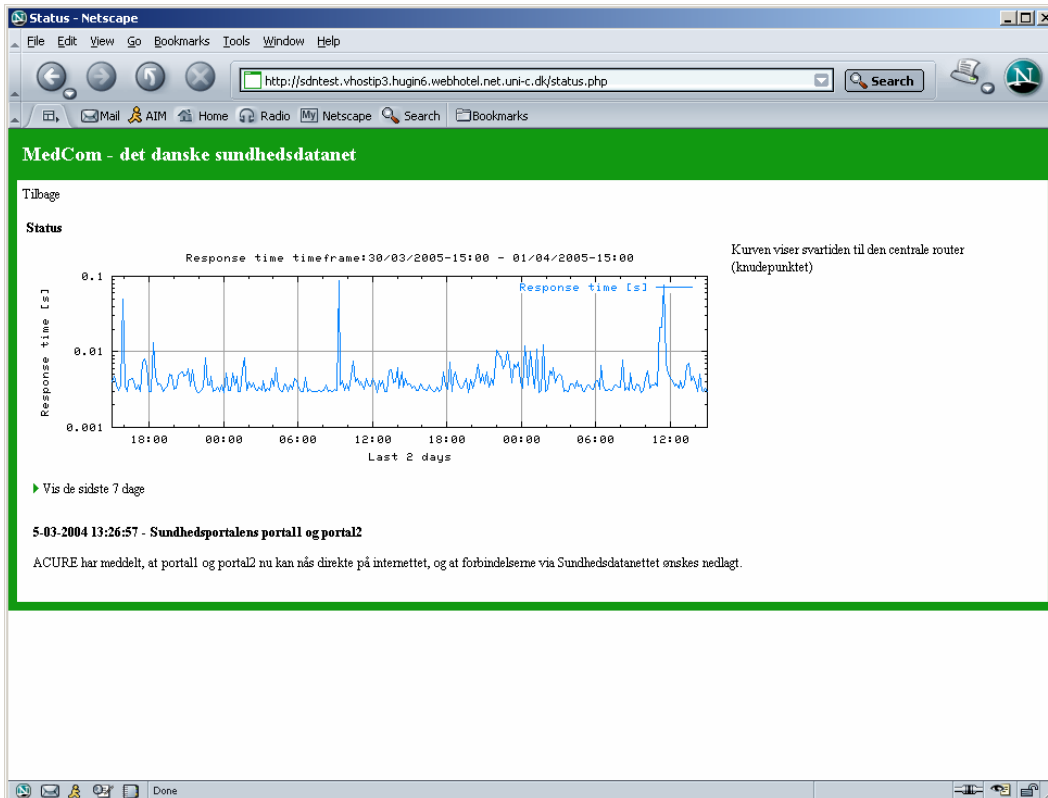
Publish/Revise status reports

UNI•C administrators can publish and delete status reports on the status page of the agreement system. See Chapter 6.

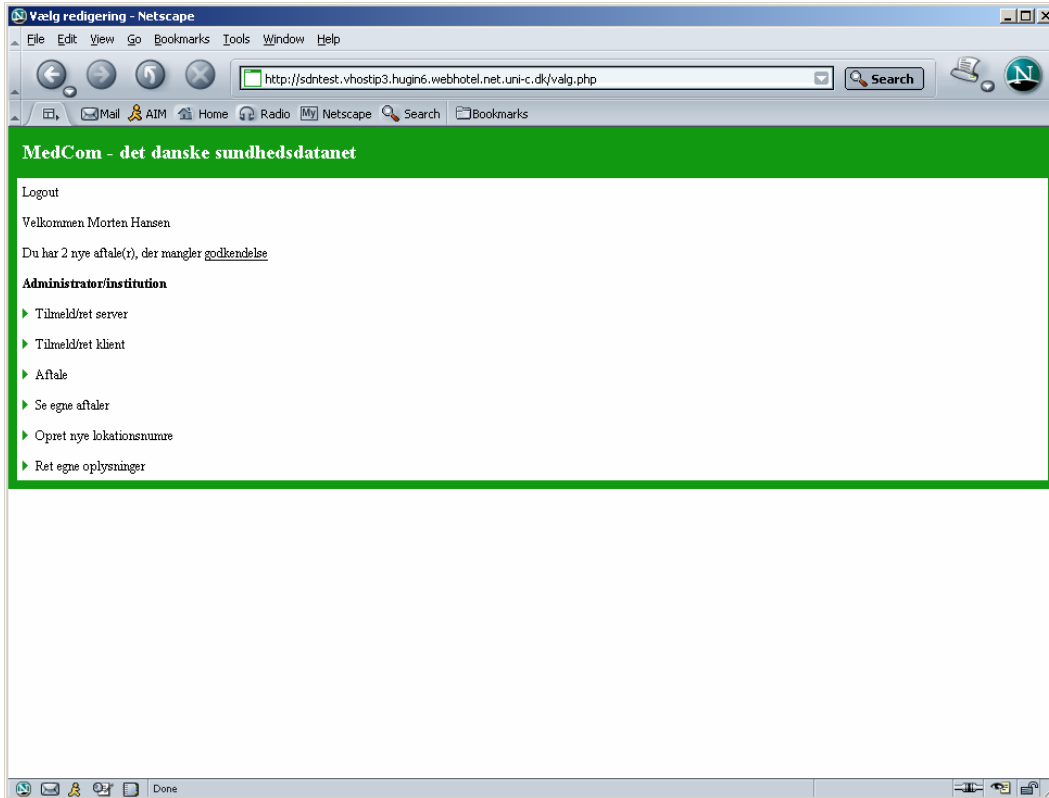
5 Login



6 Health Data Net status



7 Menu



8 Register/Revise server

Tilmeld ny server - Netscape

File Edit View Go Bookmarks Tools Window Help

http://sdrntest.vhostip3.hugin6.webhotel.net.uni-c.dk/nyServer.php

Mail AIM Home Radio [My] Netscape Search Bookmarks

MedCom - det danske sundhedsdatanet

Logout | Vælg redigering

Tilmeld ny server

Servernavn: *

Det navn serveren optræder under i oversigten under staler.

Vælg net: 195.80.243.84 - 195.80.243.87

SDN ip-nummer: *

Den sidste byte i ipnr.

Service: *

alt
collaboration
diabetesdb
EDI-Mail
ftp-passive
ftp-active
HTTP

Service serveren tilbyder.
Hold ctrl+nede for at vælge mere end én service.

Dnsnavn: .medcom

Fx: [www-test.uni-c](http://www-test.uni-c.dk) [medcom]

Beskrivelse:

Arvænde ip-numre:
Servere:
• 195.80.243.85
 medcom
 → net
 → slt

Kluster:

Beskrivelsen vises når nye staler oprettes.

Done

9 Register/Revise client

The screenshot shows a Netscape browser window with the title 'Tilmeld ny klient - Netscape'. The address bar contains the URL 'http://sdrntest.vhostip3.hugin6.webhotel.net.uni-c.dk/nyKlient.php'. The page content is titled 'MedCom - det danske sundhedsdatanet' and includes a navigation menu with 'Logout' and 'Vælg redigering'. The main heading is 'Tilmeld ny klient'. The form consists of several fields: 'Klientnavn' (text input with a red asterisk), 'Vælg net' (radio button selected for '195.80.243.84 - 195.80.243.87'), 'SDN ip-nummer' (text input with a red asterisk), 'Beskrivelse' (text area), and 'Anvendte ip-numre' (checkbox selected for '195.80.243.85 medcom'). A 'Tilmeld ny klient' button is located below the 'Klientnavn' field. The status bar at the bottom shows 'Done'.

Logout | Vælg redigering

Tilmeld ny klient

Klientnavn: *

Det nævnte klienten optræder under i oversigten under staler.

Vælg net: 195.80.243.84 - 195.80.243.87

SDN ip-nummer: *

Den sidste byte i ipnr.

Beskrivelse:

Beskrivelsen vises når nye staler oprettes.

Anvendte ip-numre: Klienter:

Servere:

- 195.80.243.85
medcom