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## **TDDI41 Lab report**

Högskoleingenjörsutbildning i datateknik, 180 hp

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# NIS

## Exercise 1: Review and preparation

### 1-1 Read about NIS and answer the following questions.

#### a) What is a NIS map?

A NIS map is essentially a map structure with a key and a corresponding value.

#### b) What is a NIS domain? What is the NIS domain of your server and clients.

A network of a master server, optional slave servers, and a set of clients. For us, the B4-server will act as NIS server and the rest will be clients.

#### c) What is the name of the map that is used to look up users by name.

netgroup

#### d) How do users change passwords when NIS is in use? How does that work.

Preferrably, they use `rpasswd` which changes the password over a SSL connection.

### 1-2 Read the documentation for the commands `ypcat`, `ypwhich` and `ypbind` and answer the following questions.

#### a) What is `ypcat` used for.

Print values of all keys from the NIS database specified by `mapname`.

#### b) What is `ypwhich` used for.

Returns the NIS server name.

**c) What is ypbind used for.**

Maintaining NIS binding information.

**d) What does the -k command-line option to ypcat do.**

Displays map keys.

**e) If you want to list all users on a NIS client, what command would you use.**

`ypcat netgroup`

**f) If you want to see which NIS server a client is bound to, which command would you use.**

`ypwhich [hostname]` (empty for localhost)

**g) If you want to see the NIS domain of a client, what command would you use.**

`ypdomainname`

## **Exercise 2: Directory services**

### **2-1 Why use a directory service?**

Why not? It's quite handy ...

**Name one alternative to a directory service.**

No directory service.

### **2-2 Name at least two common directory services other than NIS.**

Microsoft Active Directory, LDAP

## **Exercise 5: Configure the clients' name service switch**

**5-1 What is the difference between using "compat" and using "files nis" as the list of sources for e.g. passwords in the name service switch.**

Compat adds the possibility of special entries which enables partial (rows and/or columns) fetching of NIS maps. The local files remain the primary source, and the special entries are read from these.

### **5-3 Why should you use local files as the first information source instead of NIS.**

A strong argument for at least reading local login files, before querying the respective NIS map, is that if that map has a user entry for 'root' (a mistake), the opposite would effectively impose a network-global login for root.

However, even if a 'root' entry did not exist in the NIS map, using a "NIS first, local second" setup opens up for the same problem in case an attacker gains access to the NIS server, editing such an entry in.