SANE scanning in the network

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Introduction
A machine has a scanner attached to it and this resource should be shared in the network. How to configure and install sane

Installation

server and client

The basic package that provides the scan daemon is saned, this needs to be installed on the server and the client

```
aptitude install sane
```

LTSP specific

If the packages need to be installed on the ltsp client first run the ltsp-chroot command

```
ltsp-chroot -m
apt-get install sane
```

No need to run the ltsp-update-image just yet, as the package needs to be configured

Configuration

server

On the server we need to enable the start of the daemon

```
/etc/default/saned
RUN=yes
```

Configure the network to where it should expose the scanner, adapt to actual configuration

```
/etc/sane.d/saned.conf
192.168.10.0/24
```

and add the saned user to the group lp, or whatever group write permissions are set

```
adduser saned lp
```

restart the saned service
service saned stop
service saned start

Note for Jessie: the saned service is masked. So:
rm /lib/systemd/system/saned.service
systemctl daemon-reload
systemctl unmask saned.service
systemctl daemon-reload
systemctl restart saned.service

client
Configure the host it should connect to scanners, adapt to actual configuration

/etc/sane.d/net.conf
192.168.10.1

If the scanner is a HP and connected on the LAN (configured with cups/hplip): install the package libsane-hpio.

LTSP specific
Edit the file in the ltsp filesystem

/opt/ltsp/i386/etc/sane.d/net.conf
192.168.10.1

and now update the image

ltsp-update-image

Trouble Shooting

no access to device
error message "Access to resource has been denied"

1. check if the scanner is recognized by the system

    # as root
    lsusb
    --snip--
    Bus 002 Device 005: ID 03f0:3b17 Hewlett-Packard LaserJet M1005 MFP
    --snip--

    in this case, look at the permissions of bus 002 and device 005

    ls -l /dev/bus/usb/002/005
    crw-rw-r-- 1 root lp 189, 132 Jan 21 12:00 /dev/bus/usb/002/005

    And see that the process that needs to access the scanner is in the correct group. To change the group, edit the udev rules in /etc/udev/rules.d/