

5. Some simple devices

5.1 Being home

For some scripts it can be important whether I am home. For example: certain lights will go on only when I am there, otherwise they stay out.

My presence at home is determined by the fact that my phone is there. My DHCP server hands out a fixed address to the phone, based on the MAC-ID. On the phone, I set the sleep policy to "never":

```
Settings
-> Wireless & Network Setting
    -> Wifi Settings
        -> Press Menu button
            -> Advanced
                -> WiFi Sleep Policy
```

That was enough for my Android phone to respond to pings.

I made a virtual hardware device type "Dummy (Does nothing, use for virtual switches only)". For that hardware, I made a virtual sensor, type switch. The name of that sensor is assigned to the variable DOMO_DEV in the script below.

The script polls the phone and sets the value of the virtual switch.

```
#!/bin/bash
#REMOTE@ domoticz.home /usr/local/bin/ljthuis
#####
# Set or change the hostnames below to match your environment
#####

DOMOTICZ='domoticz.home:8888'
TARGET=192.168.178.219
DOMO_DEV='laurent-jan_thuis'

#####
helpme(){
cat <<EOF

NAME: Am i at home?

EOF
}

if [ "$1" = "-h" ] ; then
    helpme
    exit 0
fi

verbose=0
if [ "$1" = "-v" ] ; then
    verbose=1
fi

debug(){
    if [ "$verbose" = 1 ] ; then
        echo $*
    fi
}

tmp=$(mktemp)
now=$(date)

# Get list of devices
curl --silent "http://$DOMOTICZ/json.htm?type=command&param=devices_list" |
sed 's"/g;s/,/' |
while read nv col val ; do
    if [ "$nv" = 'name' ] ; then
```

```

        name="$sval"
        elif [ "$nv" = 'value' ] ; then
            echo "$sval $name"
        fi
done > $tmp

val=0
if ping -c5 $TARGET > /tmp/last_ljm.out 2> /tmp/last_ljm.err ; then
    val=1
fi
debug "Value: $val"
idx=$(sed -n "s/ $DOMO_DEV//p" $tmp)
debug "idx=$idx"
if [ "idx" = "" ] ; then
    true
else
    debug curl --silent "http://$DOMOTICZ/json.htm?type=command&param=udevice&idx=$idx&nvalue=$val"
    curl --silent "http://$DOMOTICZ/json.htm?type=command&param=udevice&idx=$idx&nvalue=$val" > /dev/null
fi

rm -f $tmp

```

The script runs every 5 minutes from cron

```

#USER root@domoticz.home #--ljthuis.cron:root
#INSTALLEDFROM verlaine:src/domoticz #--ljthuis.cron:root
# m h D M dow cmd #--ljthuis.cron:root
1,16,31,46 * * * * /bin/bash /usr/local/bin/ljthuis > /tmp/last_ljthuis.out 2>/tmp/last_ljthuis.err #--ljthuis.cron:root
6,21,36,51 * * * * /bin/bash /usr/local/bin/ljthuis > /tmp/last_ljthuis.out 2>/tmp/last_ljthuis.err #--ljthuis.cron:root
11,26,41,56 * * * * /bin/bash /usr/local/bin/ljthuis > /tmp/last_ljthuis.out 2>/tmp/last_ljthuis.err #--ljthuis.cron:root

```

5.2 Internet connection

I had the impression that my Internet connection was unreliable. To get some data about how unreliable the connection was, I created a custom sensor, with the sensor unit "msec". The value of the sensor is the round-trip time for a ping to 8.8.8.8. Again, an external script updates the value of the sensor.

```

#!/bin/bash
#REMOTE@ domoticz.home /usr/local/bin/internetup
#####
# Set or change the hostnames below to match your environment
#####

DOMOTICZ='domoticz.home:8888'
TARGET=8.8.8.8

#####
helpme(){
cat <<EOF

NAME:
    internetup - test if internet is up

SYNOPSIS:
    p1_report

DESCRIPTION:

Internetup pings $TARGET to see if the Internet is reachable.

The default URL for Domoticz is '$DOMOTICZ' and the default
target for ping is $TARGET

Internetup is typically started by cron to ensure a regular data feed to
Domoticz.

EOF
}

if [ "$1" = "-h" ] ; then
    helpme
    exit 0
fi

verbose=0
if [ "$1" = "-v" ] ; then
    verbose=1
fi

```

```

debug() {
    if [ "$verbose" = 1 ] ; then
        echo $*
    fi
}

tmp=$(mktemp)
pingout=$(mktemp)
now=$(date)

val=500
if ! ping -c1 8.8.8.8 > $pingout ; then
    sleep 1
    ping -c1 8.8.8.8 > $pingout
fi
if grep -q 'time=' $pingout ; then
    val=$(sed -n 's/ ms//; s/.time=//p' $pingout)
fi
debug "Value: $val"

# Get list of devices
curl --silent "http://$DOMOTICZ/json.htm?type=command&param=devices_list" |
sed 's/"//g;s/,//' |
while read nv col val ; do
    if [ "$nv" = 'name' ] ; then
        name="$val"
    elif [ "$nv" = 'value' ] ; then
        echo "$val $name"
    fi
done > $tmp

inet_idx=$(sed -n 's/ internet_up//p' $tmp)

debug "inet_idx=$inet_idx"

if [ "inet_idx" = "" ] ; then
    echo "$now No inet dev">> /tmp/last_inet
else
    debug curl --silent "http://$DOMOTICZ/json.htm?type=command&param=device&idx=$inet_idx&nvalue=1&svalue=$val"
    curl --silent "http://$DOMOTICZ/json.htm?type=command&param=device&idx=$inet_idx&nvalue=1&svalue=$val" > /dev/null
    echo "$now Internet: $val" >> /tmp/last_inet
fi

tail -1024 /tmp/last_inet > $tmp
mv $tmp /tmp/last_inet

rm -f $tmp $pingout

```

And again, launched from cron:

```

#USER root@domoticz.home #--internet_up.cron:root
#INSTALLEDFROM verlain:src/domoticz #--internet_up.cron:root
# m h D M dow cmd #--internet_up.cron:root
0,15,30,45 * * * * /bin/bash /usr/local/bin/internetup > /tmp/last_internetup.out 2>/tmp/last_internetup.err #--internet_up.cron:root
5,20,35,50 * * * * /bin/bash /usr/local/bin/internetup > /tmp/last_internetup.out 2>/tmp/last_internetup.err #--internet_up.cron:root
10,25,40,55 * * * * /bin/bash /usr/local/bin/internetup > /tmp/last_internetup.out 2>/tmp/last_internetup.err #--internet_up.cron:root

```

The results for my Ziggo line where, that I had a down time of more than 15 minutes about every two days. Also, the round-trip time varied wildly, between 8msec and 100msec. That jitter was a serious problem in video calls.

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