SMS Alert dengan memanfaatkan remote logging

Oleh:

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Tentang saya :

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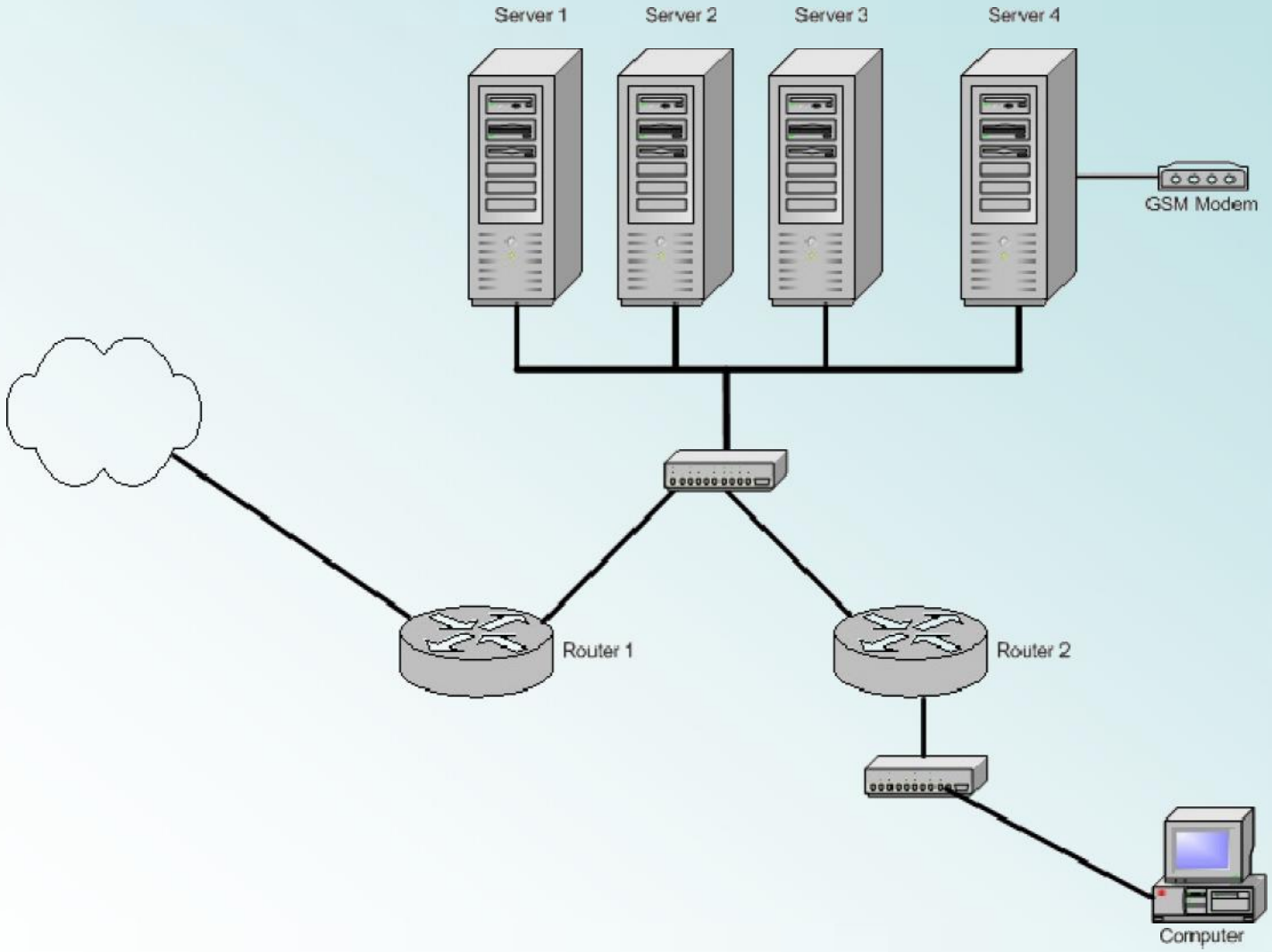
- Lulusan D3 Teknik Komputer STMIK Akakom (1998)
- Staff IT (SiJar) di STMIK Akakom (1998 - Sekarang)
- Programmer (freepascal, lazarus, delphi)
- Mengenal Mikrotik (2007)
- Sertifikasi Mikrotik MTCNA (September 2013)

System Logging

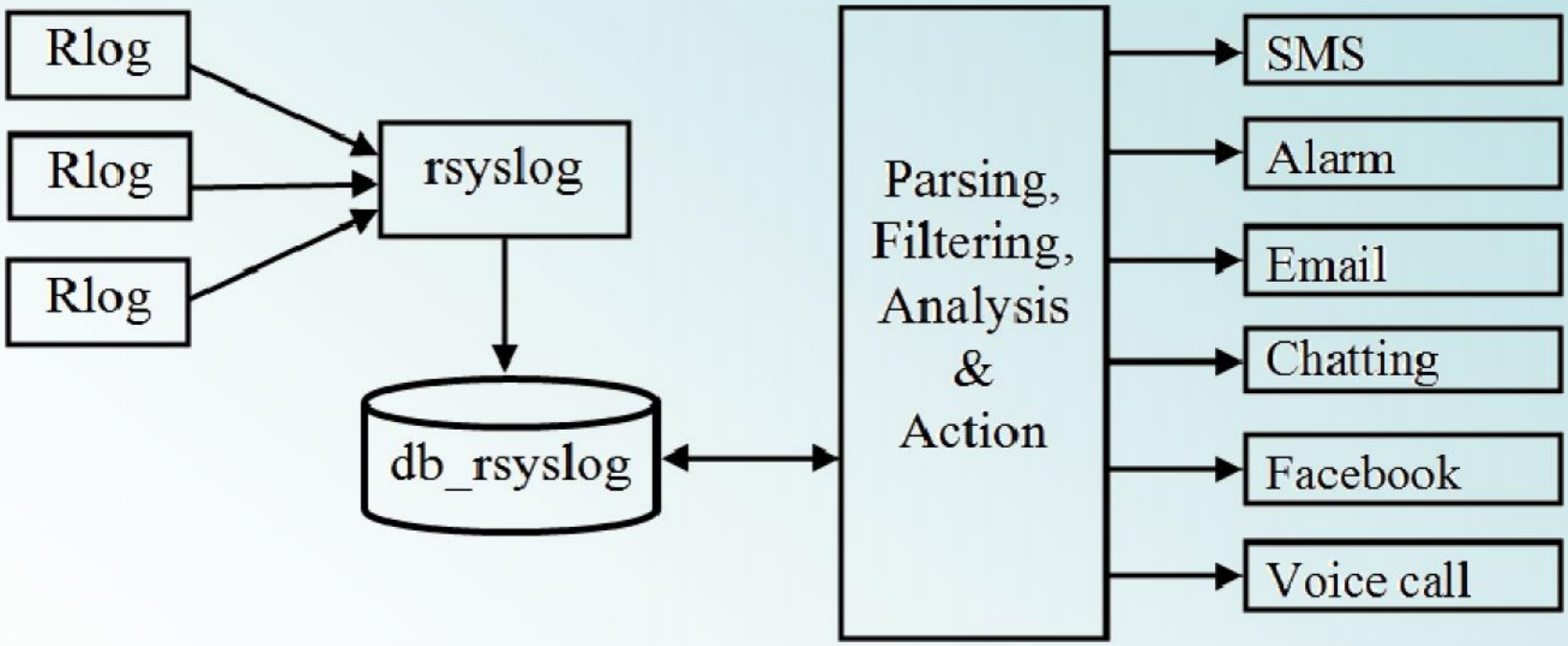
Adalah Pencatatan kegiatan atau aktifitas suatu sistem.
Metode pecatatannya ada 2 jenis
- pencatatan berkas di lokal sistem
- pencatatan berkas di remote sistem (terpusat)

Beberapa fungsi logging adalah:
- mengidentifikasi masalah (troubleshooting)
- deteksi dini (early detection)

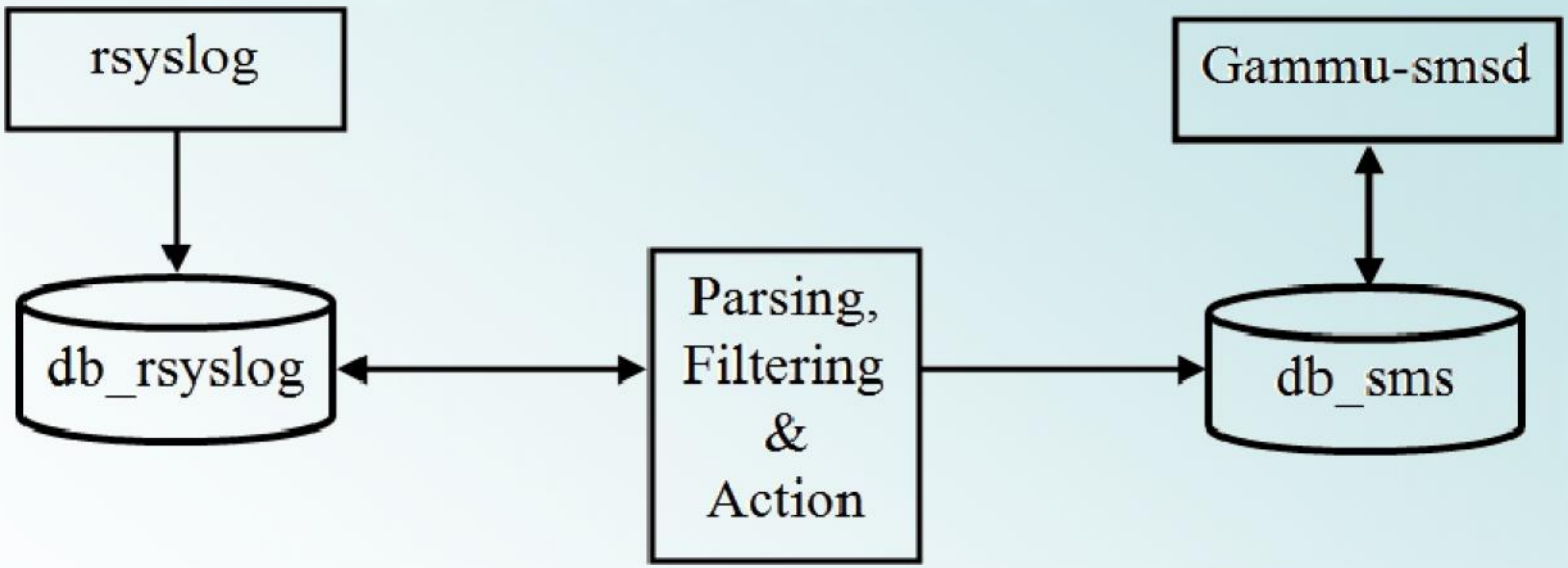
Kasus


Server 1
Server 2
Server 3
Server 4
GSM Modem
Router 1
Router 2
Computer

Konsep


Rlog
Rlog
Rlog
rsyslog
db_rsyslog
Parsing,
Filtering,
Analysis
&
Action
SMS
Alarm
Email
Chatting
Facebook
Voice call

Perancangan dan Pembuatan



Instalasi rsyslog pada Centos 5.x

yum install –y rsyslog rsyslog-mysql

Edit file /etc/rsyslog.conf

vi /etc/rsyslog.conf

$ModLoad ommysql

:fromhost-ip, isequal, "192.168.1.100” :ommysql:localhost, Syslog, syslog, syslog123

Membuat database dan tabel

mysql -u root -p < /usr/share/dos/rsyslog-mysql-3.22.1/createDB.sql

mysql -u root -p mysql

GRANT ALL ON Syslog.* TO syslog@localhost IDENTIFIED BY ‘syslog123’;

flush privileges;

Tambahkan field *processed* pada tabel *systemevents*

mysql -u root -p Syslog

ALTER TABLE systemevents ADD processed TINYINT(1)
UNSIGNED DEFAULT "0“;

Membuat program untuk memilah log pesan

Algoritmanya adalah sebagai berikut:

- Ambil semua record yang belum diproses
- Cek log pesan per record
- Apabila awal kalimat adalah #SMS# maka “kirim sms”
- Beri tanda kalau sudah diproses

Contoh program dengan freepascal

```
{$MODE DELPHI}
uses ZConnection, ZDataset, SysUtils, Classes;
var  zcon : TZConnection;
     q1,q2 : TZQuery;
     msg,tag: string;
     idx    : longint;

Procedure KirimSMS(nohp,psn:string);
begin
   q2.Close;
   q2.SQL.Clear;
   q2.SQL.Add('insert into db_sms.outbox
(DestinationNumber,Textdecoded,coding,creatorid) '+
              'values (:DestinationNumber,:Textdecoded,:coding,:creatorid)');
   q2.ParamByName('DestinationNumber').AsString:=nohp;
   q2.ParamByName('Textdecoded').AsString:=psn;
   q2.ParamByName('coding').AsString:='Default_No_Compression';
   q2.ParamByName('creatorid').AsString:='ACHMAD MURITNO';
   q2.ExecSQL;
end;
```

```
procedure Sudah_diProses(id:longint);
begin
   {kasih tanda sdh diproses}
   q2.Close;
   q2.SQL.Clear;
   q2.SQL.Add('update Syslog.SystemEvents set processed=1 where id=:id');
   q2.ParamByName('id').AsInteger:=id;
   q2.ExecSQL;
end;

begin
   zcon:=TZConnection.create(nil);
   q1:=TZQuery.create(nil);
   q2:=TZQuery.create(nil);
   zcon.hostname:='localhost';
   zcon.user:='syslog';
   zcon.password:='syslog123';
   zcon.protocol:='mysql';
   zcon.database:='Syslog';
```

```
    q1.connection:=zcon;
    q2.connection:=zcon;
    q1.Close;
    q1.SQL.Clear;
    q1.SQL.Add('select id,message from Syslog.SystemEvents where processed=0 order by id');
    q1.open;
    if q1.RecordCount > 0 then
    begin
      q1.First;
      while not q1.Eof do
      begin
        idx:=q1.fieldbyname('id').AsInteger;
        msg:=q1.fieldbyname('message').AsString;
        tag:=trim(copy(msg,1,6));
        msg:=copy(msg,7,length(msg));
        if tag='#SMS#' then KirimSMS('081568xxxxx',msg);
        Sudah_diProses(idx);
        q1.Next;
      end;
    end;
end.
```

Membuat cron untuk mengeksekusi file program tiap 10 detik

vi /etc/crontab

```
* * * * * root run-parts /etc/cron.menit
```

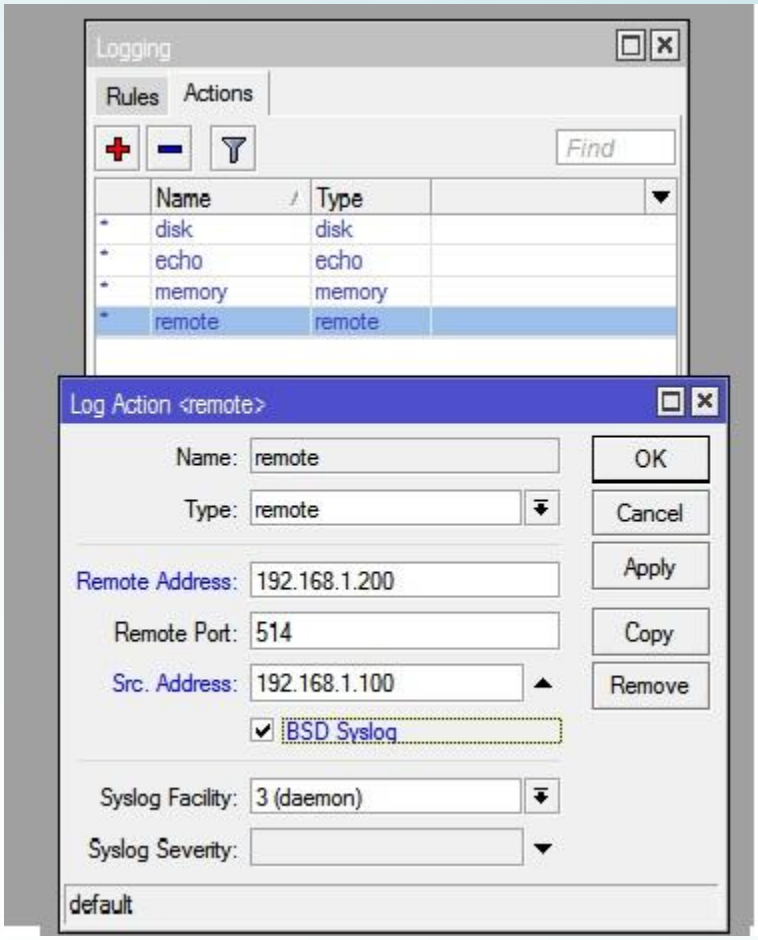
vi /etc/cron.menit/ceklog

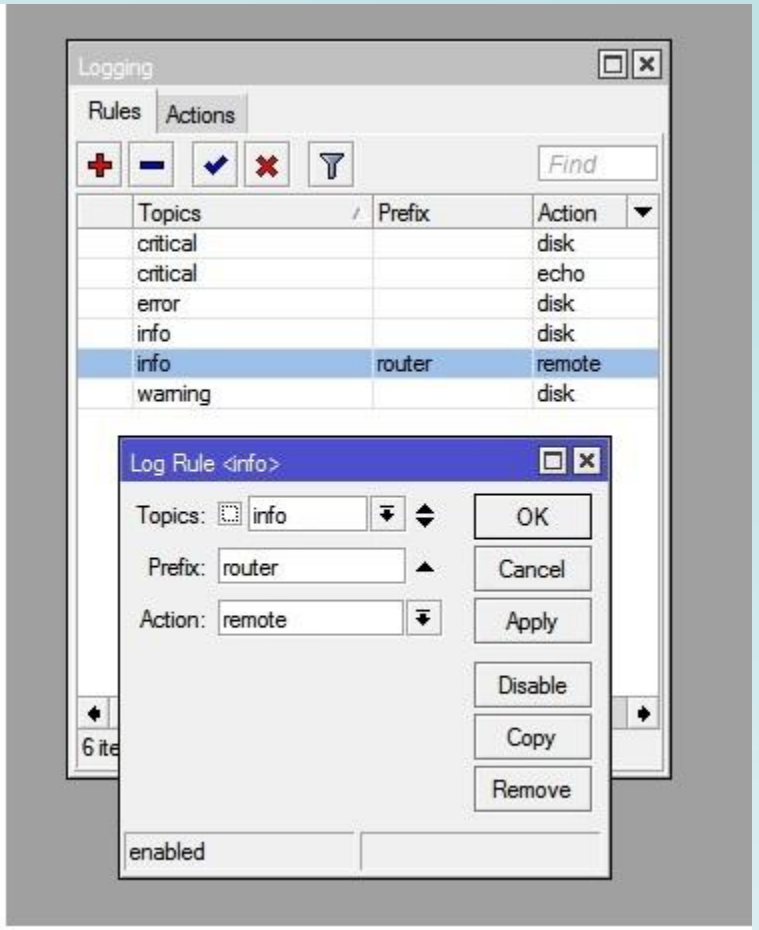
```
#!/bin/bash
/root/programku/smsalert
sleep 10
/root/programku/smsalert
sleep 10
/root/programku/smsalert
sleep 10
/root/programku/smsalert
sleep 10
/root/programku/smsalert
sleep 10
```

Jalankan service

```
service rsyslog restart
service crond restart
```

Konfigurasi remote logging pada mikrotik

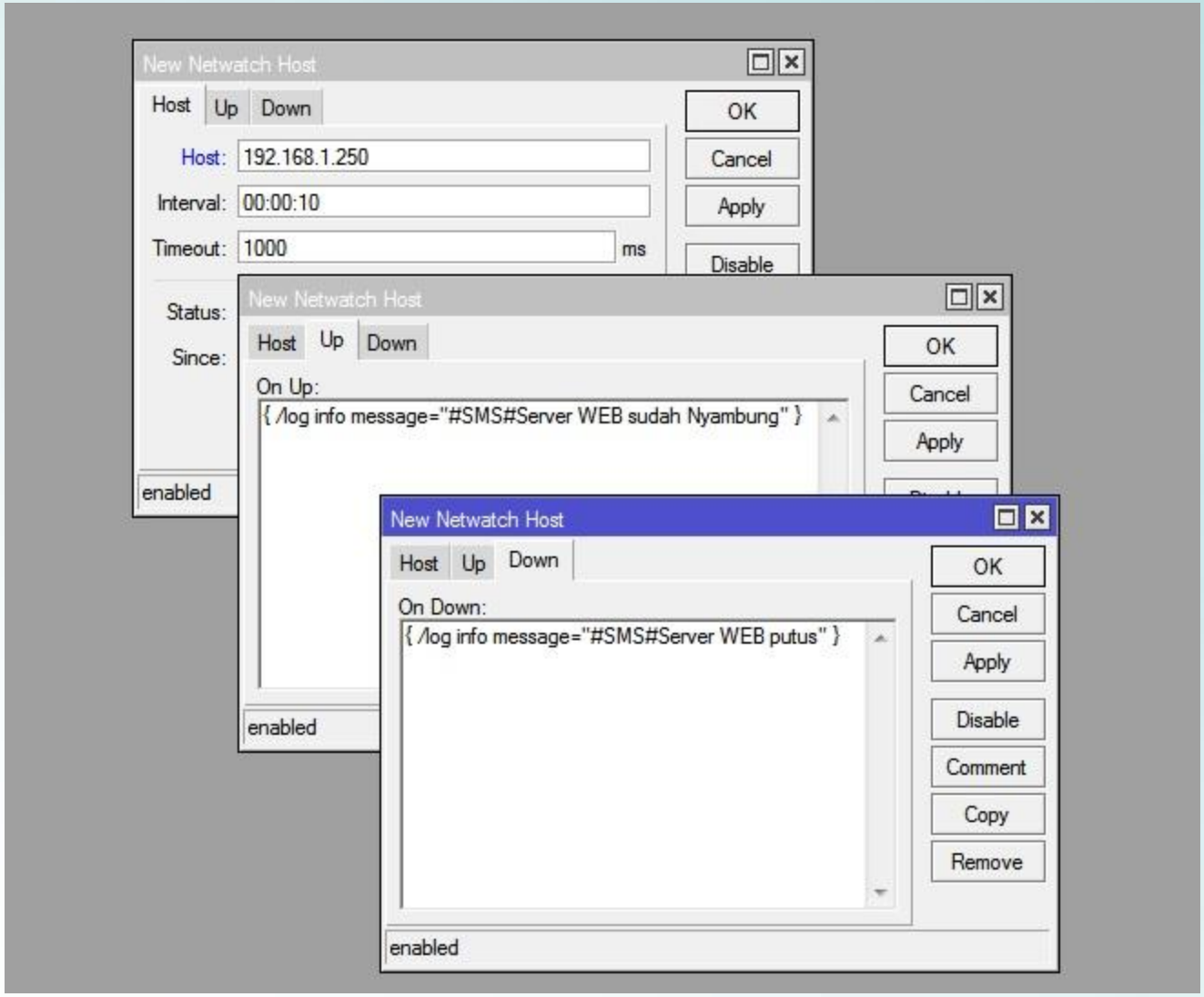




Pengujian dengan terminal console

> /log info message=“#SMS#Ngetes kirim sms”

Pengujian dengan Netwatch



Terima kasih

Pertanyaan ?