ภาคผนวก

การควบคุมการใช้งานเน็ตเวิร์คด้วยแบนด์วิธแบบพลวัตตามจำนวนผู้ใช้งาน

```php
<?php
$lines = file('/home/temp/log.txt',FILE_SKIP_EMPTY_LINES);
$ac = fopen('/home/data/acdata.txt', 'a');
for($i=2; $i<count($lines)/2-4;$i++)
        {
                $index = substr($lines[$i*2-1],0,4);
                $sourceip = substr($lines[$i*2-1],5,15);
                $bwout = substr($lines[$i*2-1],60,12);
                $desips = substr($lines[$i*2],5,15);
                $desip=rtrim($desips);
                $ip[$i] = $desip;
                $inbw = substr($lines[$i*2],60,12);
if(stripos($bwout,"Kb")){
$bwouts=$bwout/1;
                if(stripos($bwout,"Mb")){
                $bwouts=$bwout*1024;
                                        }
                                }
                        else{
                $bwouts=$bwout/1024;
                                        }
                @$bw[$desip]=$bw[$desip]+$bwouts;
        }
                $send = substr($lines[count($lines)-8],60,12);
                $recive = substr($lines[count($lines)-7],60,12);
                        if(strpos($send,"Mb")){
                                $sends=$send*1024;
                                        }
                        else{
                                $sends=$send;
                                }
```

```php
$x=0;

$k = array();

$b= array_unique ($ip);

foreach($b as $value){

        $k[$x] = $value;

                $x++;

}

print_r($k);

$c = count($k);

echo "\n";

switch($c){

case '1':

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::1 u32
match ip dst $k[0]/32 flowid 1:1");

                break;

case '2':

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::1 u32
match ip dst $k[0]/32 flowid 1:2");

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::2 u32
match ip dst $k[1]/32 flowid 1:3");

                break;

case '3':

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::1 u32
match ip dst $k[0]/32 flowid 1:4");

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::2 u32
match ip dst $k[1]/32 flowid 1:5");

        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::3 u32
match ip dst $k[2]/32 flowid 1:6");

                break;
```

```
case '4':
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::1 u32
match ip dst $k[0]/32 flowid 1:7");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::2 u32
match ip dst $k[1]/32 flowid 1:8");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::3 u32
match ip dst $k[2]/32 flowid 1:9");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::4 u32
match ip dst $k[3]/32 flowid 1:10");
                break;
case '5':
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::1 u32
match ip dst $k[0]/32 flowid 1:11");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::2 u32
match ip dst $k[1]/32 flowid 1:12");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::3 u32
match ip dst $k[2]/32 flowid 1:13");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::4 u32
match ip dst $k[3]/32 flowid 1:14");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::5 u32
match ip dst $k[4]/32 flowid 1:15");
                break;
        }
        $max=0;
        $maxip="";
        $min=0;
        $minip="";
        $p = 15/100;
        $dif = abs($bw['10.0.0.14']-$bw['10.0.0.15']);
```

```php
if($sends>800){
        if($dif>$p*1000){
        foreach ($bw as $desip=>$sumbw){
                if($sumbw>$max){
                        "max". $max=$sumbw;
                        "per" . $rate=$max-($p*$max);
                        "maxip" . $maxip=$desip;
                        $r = $rate . 'kbit';
        exec ("/sbin/tc class replace dev tun0 parent 1:0 classid 1:2$i htb rate $r");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::10$i u32
match ip dst $maxip/32 flowid 1:2$i");
                }
                        }
                }
if($sends<200){
                foreach ($bw as $desip=>$sumbw){
                if($sumbw<$min){
                        "min". $min=$sumbw;
                        "per" . $rate=$max+($p*$max);
                        "minip" . $minip=$desip;
                        $r = $rate . 'kbit';
        exec ("/sbin/tc class replace dev tun0 parent 1:0 classid 1:2$i htb rate $r");
        exec ("/sbin/tc filter replace dev tun0 protocol ip parent 1: prio 1 handle 800::10$i u32
match ip dst $minip/32 flowid 1:2$i");
                }
                        }
                }

fclose($ac);
                }
?>
```