

Technologie sieciowe 2

Autor:

Tymon Tobolski (181037)

Jacek Wieczorek (181043)

Prowadzący:

Dr inż. Andrzej Grzybowski

Wydział Elektroniki

III rok

Pn TN 11.15 - 13.00

19 listopada 2011

1 Cel laboratorium

2 Zadania

2.1 Zadanie 1

Po podłączeniu wszystkich urządzeń i wejściu się przez przeglądarkę pod adres **192.168.1.1** ukazało się okno logowania. Domyślna nazwa użytkownika to **???**, a hasło **???**. W celu ustawienia połączenia z internetem należało wybrać opcję **Dynamic IP Address (Cable Modem User)**.

WAN Interface

☐ PPPoE (ADSL User)
☒ **Dynamic IP Address (Cable Modem User)**
☐ Static IP Address
☐ PPTP (European User Only)

IP Address: 192.168.255.213 Renew Release

MAC Address: 00:30:4F:83:94:FB Clone MAC Address

Hostname: (Max. 50 characters)

Domain Name: (Max. 80 characters)

User Name (Required by DHCP+ protocol): (Max. 127 characters)

Password (Required by DHCP+ protocol): (Max. 127 characters)

Max. Downstream Bandwidth: 10000 Kbps (Range: 1 - 25600)

Max. Upstream Bandwidth: 10000 Kbps (Range: 1 - 25600)

Enable System Management: ☐ Ping ☐ HTTP

OK Cancel

2.2 Zadanie 2

2.3 Zadanie 3

Ustawienie polisy umożliwiającej wyjście do Internetu.

Source	Destination	Service	Action	Option				Configure			Move
Inside_Any	Outside_Any	ANY	✓					Modify	Remove	Pause	To 1 ▼

New Entry

2.4 Zadanie 4

Zdefiniowane adresu 2 komputerów.

Name	IP / Netmask	MAC Address	Configure
Inside_Any	0.0.0.0/0.0.0.0		In Use
jacek	192.168.1.3/255.255.255.0	1C:6F:65:D8:61:33	Modify Remove
tymon	192.168.1.4/255.255.255.255	1C:6F:65:D8:61:4F	Modify Remove

New Entry

2.5 Zadanie 5

Zdefiniowane reguły QoS.

Name	Downstream Bandwidth	Upstream Bandwidth	Priority	Configure
qos1	G.Bandwidth = 10 Kbps M.Bandwidth = 100 Kbps	G.Bandwidth = 5 Kbps M.Bandwidth = 50 Kbps	Middle	In Use
qos2	G.Bandwidth = 1000 Kbps M.Bandwidth = 10000 Kbps	G.Bandwidth = 100 Kbps M.Bandwidth = 10000 Kbps	Middle	In Use

[New Entry](#)

Rysunek 1:

2.6 Zadanie 6

Reguły ograniczające pasmo.

Source	Destination	Service	Action	Option					Configure			Move
Inside_Any	Outside_Any	ANY	✓						Modify	Remove	Pause	To 1 ▼
tymon	Outside_Any	ANY	✓						Modify	Remove	Pause	To 2 ▼
jacek	Outside_Any	ANY	✓						Modify	Remove	Pause	To 3 ▼

New Entry

Source	Destination	Service	Action	Option					Configure			Move
Outside_Any	tymon(Routing)	ANY	✓						Modify	Remove	Pause	To 1 ▼

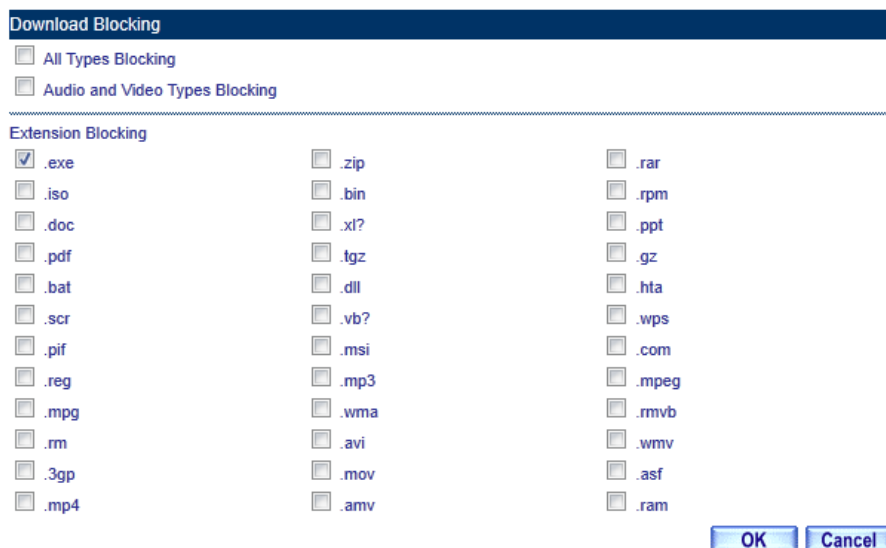
New Entry		QoS : qos3	
		Downstream Bandwidth	Upstream Bandwidth
		G.Bandwidth = 100 Kbps	G.Bandwidth = 100 Kbps
		M.Bandwidth = 100 Kbps	M.Bandwidth = 100 Kbps

W celu sprawdzenia limitu pasma został wykorzystany serwis <http://speedtest.net>.



2.7 Zadanie 7

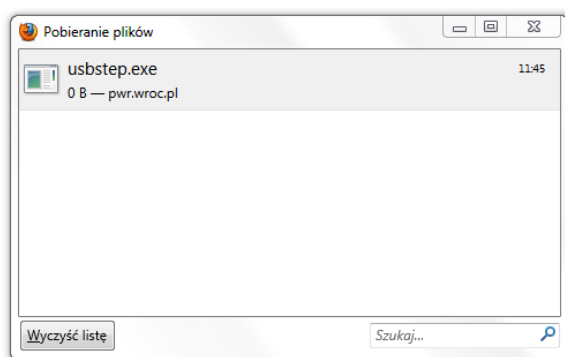
Reguła blokująca pobieranie plików .exe.



Przetestowanie reguły blokującej pobieranie plików .exe.

Source	Destination	Service	Action	Option				Configure			Move
jacek	Outside_Any	ANY	✓					Modify	Remove	Pause	To 1 ▾
Inside_Any	Outside_Any	ANY	✓					Modify	Remove	Pause	To 2 ▾
tymon	Outside_Any	ANY	✓					Modify	Remove	Pause	To 3 ▾

New Entry



2.8 Zadanie 8

Reguła umożliwiająca połączenie jedynie ze stroną **kssk.pwr.wroc.pl**.

URL String	Configure
~www.kssk.pwr.wroc.pl	Modify Remove
*	Modify Remove

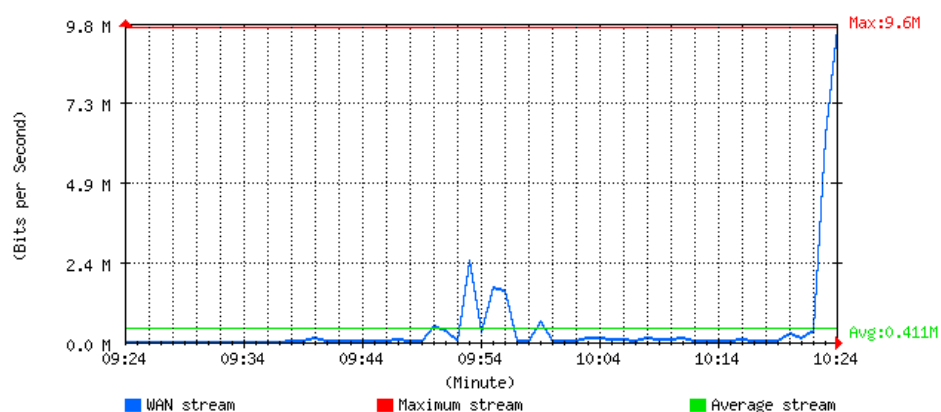
[New Entry](#)

2.9 Zadanie 9

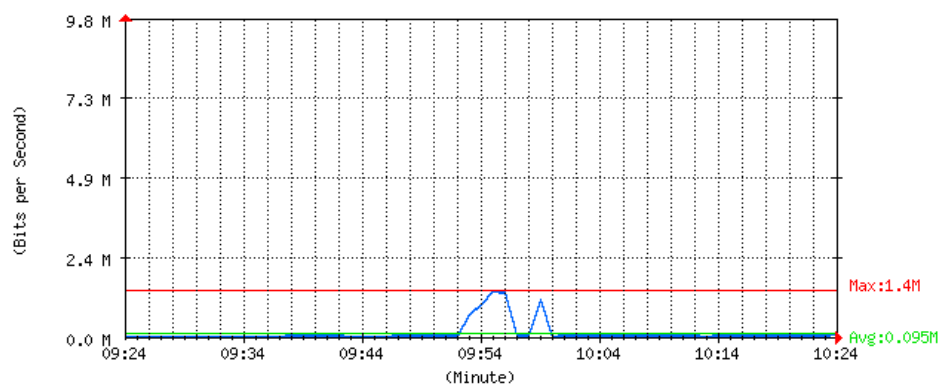
Statystyki ruchu w sieci

Bits/sec Bytes/sec Utilization Total Minute Hour Day Week Month Year
Real-time: Down 0.0 KBits/sec Up 0.0 KBits/sec

Downstream



Upstream



2.10 Zadanie 10

Czasowe blokowanie domen.

Add New Schedule

Schedule Name
PRACA
(Max. 16 characters)

Day	Period	
	Start Time	Stop Time
Monday	07:00	15:00
Tuesday	07:00	15:00
Wednesday	07:00	15:00
Thursday	07:00	15:00
Friday	07:00	15:00
Saturday	Disable	Disable
Sunday	Disable	Disable

OK
Cancel

Source	Destination	Service	Action	Option	Configure	Move
Inside_Any	Outside_Any	ANY	✓		Modify Remove Pause	To 1
jacek	Outside_Any	ANY	✓		Modify Remove Pause	To 2
jacek	Outside_Any	ANY	✗		Modify Remove Pause	To 3

Schedule : PRACA		
Day	Start Time	Stop Time
Mon	07:00	15:00
Tue	07:00	15:00
Wed	07:00	15:00
Thu	07:00	15:00
Fri	07:00	15:00

2.11 Zadanie 11

Eksport ustawień routera do pliku.

Backup / Restore Configuration	
Export System Setting to Client	Download
Import System Setting from Client	<input type="text"/> Przeglądaj...
(ex: BM525.conf)	
<input type="checkbox"/> Reset System to Factory Setting	
System Name Setting	
Device Name	Bandwidth Manag (Max. 40 characters, ex: Bandwidth Management Gateway)
E-mail Setting	
<input type="checkbox"/> Enable E-mail Alert Notification	
Sender Address (Required by some ISPs)	<input type="text"/> (Max. 60 characters, ex: sender@mydomain.com)
SMTP Server	<input type="text"/> (Max. 80 characters, ex: mail.mydomain.com)
E-mail Address 1	<input type="text"/> (Max. 60 characters, ex: user1@mydomain.com)
E-mail Address 2	<input type="text"/> (Max. 60 characters, ex: user2@mydomain.com)
Mail Test	Mail Test
Web Management (WAN Interface)	
HTTP Port	<input type="text"/> 80 (Range: 1 - 65535)
MTU Setting	
MTU	<input type="text"/> 1500 Bytes (Range: 40 - 1500)
Dynamic Routing (RIPv2)	
Enable	<input type="checkbox"/> LAN <input type="checkbox"/> WAN <input type="checkbox"/> DMZ
Routing information update timer	<input type="text"/> 30 Seconds (Range: 5 - 99999)
Routing information timeout	<input type="text"/> 180 Seconds (Range: 5 - 99999)
SIP protocol pass-through	
<input checked="" type="checkbox"/> Enable SIP protocol pass-through	
To-Appliance Packets Log	
<input checked="" type="checkbox"/> Enable To-Appliance Packets Log	

2.12 Zadanie 12

Ustawienie automatycznej synchronizacji zegara z serwerem czasu rzeczywistego.

System time : Mon Oct 24 10:28:49 2011

Synchronize system clock

☒ Synchronize system clock with an Internet time server

Set offset: hours from GMT [Assist](#)

☐ Enable daylight saving time setting

From / To /

Server IP / Name [Assist](#)

Update system clock every minutes (Range: 1 - 99999, 0: system clock updates at boot up)

Synchronize system clock with this client [Sync](#)

[OK](#) [Cancel](#)

Time Server IP or URL - Mozilla Firefox

<http://192.168.1.1/cgi-bin/indicator.cgi?type=1&num=0&modify=0>

Time Server IP or URL : [New Entry](#)

IP	Comment	Configure
220.130.158.52	time.stdtime.gov.tw	Modify Remove
140.109.1.10	stdtime.sinica.edu.tw	Modify Remove
133.100.9.2	clock.nc.fukuoka-u.ac.jp	Modify Remove
209.81.9.7	clock.via.net	Modify Remove
193.79.237.14	nlp1.nl.net	Modify Remove
131.188.3.220	nlp0.fau.de	Modify Remove

2.13 Zadanie 13

Ustawienie priorytetu dla pakietów różnych usług.

Source	Destination	Service	Action	Option				Configure	Move
Inside_Any	Outside_Any	TALK	✓					Modify Remove Pause	To 1 ▼
Inside_Any	Outside_Any	HTTP	✓					Modify Remove Pause	To 2 ▼
Inside_Any	Outside_Any	ANY	✓					QoS : qos3	To 3 ▼
jacek	Outside_Any	ANY	✗					<div> Downstream Bandwidth Upstream Bandwidth </div> <div> G.Bandwidth = 100 Kbps G.Bandwidth = 100 Kbps </div> <div> M.Bandwidth = 100 Kbps M.Bandwidth = 100 Kbps </div>	To 4 ▼

New Entry

Source	Destination	Service	Action	Option				Configure	Move
Inside_Any	Outside_Any	TALK	✓					Modify Remove Pause	To 1 ▼
Inside_Any	Outside_Any	HTTP	✓					Modify Remove Pause	To 2 ▼
Inside_Any	Outside_Any	ANY	✓					QoS : qos2	To 3 ▼
jacek	Outside_Any	ANY	✗					<div> Downstream Bandwidth Upstream Bandwidth </div> <div> G.Bandwidth = 1000 Kbps G.Bandwidth = 100 Kbps </div> <div> M.Bandwidth = 10000 Kbps M.Bandwidth = 10000 Kbps </div>	To 4 ▼

New Entry

3 Wnioski