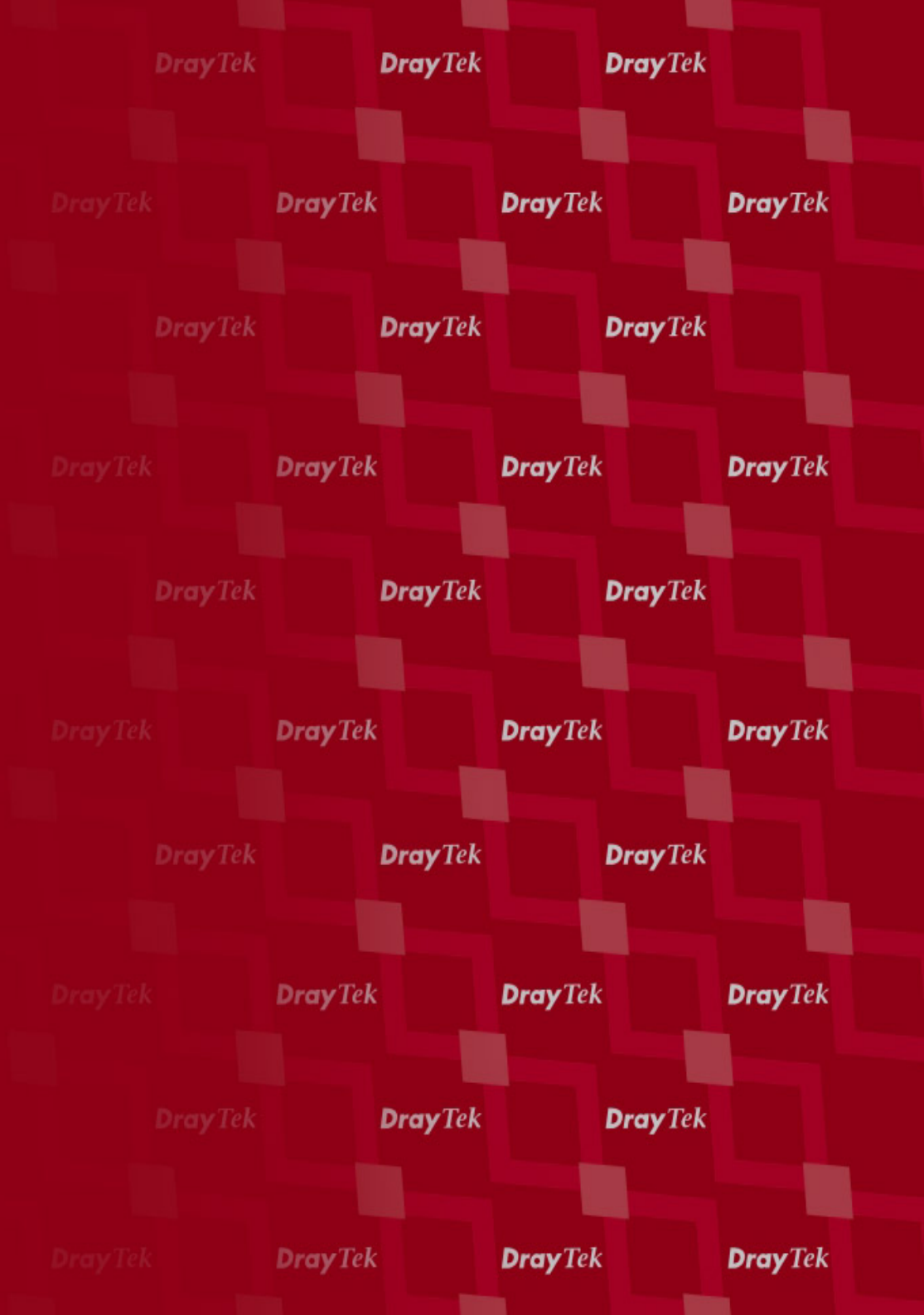


3G HSDPA with Vigor

Jimmy Tu

RD2

DrayTek Corp.



Agenda

- **3G/HSDPA and WiMax**
- **3G with Vigor**
- **3G Router Application**
- **3G Modem Support List**
- **2910 3G Setup**
- **Trouble Shooting**
- **Conclusion**

HSDPA(3.5G)

- High Speed Downlink Packet Access
- Speed
 - HSDPA Downlink: 1.8M/3.6M/7.2M/14.4Mbps
 - HSDPA Uplink: 384kbps
 - 3G uplink/downlink: 384k/ 2Mbps
- Mobility (3.6M link speed)
 - 60 Km/h : 2Mbps
 - 120 Km/h : 1.1 Mbps
 - 300 Km/h : 500 Kbps

WiMax, 3G and 3.5G

Standard	WiMax(802.16e)	3G(WCDMA)	3.5G(HSDPA)
Speed	70/30Mbps	2Mbps	14.4Mbps
Distance	50 KM	2.5 KM	5KM
Mobility	<120 km/hr	>120 km/hr	>120km/hr
Frequency	2-6GHz	400, 800, 900 1700,1800,1900MHz	1800, 1900, 2100 MHz
Bandwidth	20MHz	2100MHz 1.25MHz	5MHz

3G with Vigor Router

***Vigor Support 3G USB Modem / Cell Phone as WAN connection**

***Support Model: 2910 (WAN2), 2800/3100 (3G Backup)**

***More Models:**

2820

5500plus

...



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3G Router Application

Outdoors



Car / Train / Ship



3G Modem Support List

■ USB Modem

- Huawei E220
- Telstra TurBO/NextG
- Option iCon/ 7.2
- 4G system XSPlug P3
- Zapp Telemodem Z020
- ZTE AC8700
- Bandluxe C100
- Amoi H01

■ Cell Phone

- Nokia N70
- Nokia 6233
- Benq EF91
- ...

*http://www.draytek.com/support/support_note/router/faq/usb/10.php

2910 3G Setup

■ Step 1: General Setup

WAN >> General Setup

General Setup

WAN1	WAN2
Enable: <input type="button" value="Yes"/>	Enable: <input type="button" value="Yes"/>
Display Name: <input type="text"/>	Display Name: <input type="text"/>
Physical Mode: Ethernet	Physical Mode: Ethernet
Physical Type: Auto negotiation	Physical Type: Ethernet
Load Balance Mode: Auto Weight	Load Balance Mode: Auto Weight
Line Speed(Kbps): DownLink <input type="text" value="0"/>	Line Speed(Kbps): DownLink <input type="text" value="0"/>
UpLink <input type="text" value="0"/>	UpLink <input type="text" value="0"/>
Active Mode: Always On	Active Mode: Always On
Active on demand: <input type="radio"/> WAN2 Fail	Active on demand: <input type="radio"/> WAN1 Fail
<input checked="" type="radio"/> WAN2 Upload speed exceed <input type="text" value="0"/> Kbps	<input checked="" type="radio"/> WAN1 Upload speed exceed <input type="text" value="0"/> Kbps
WAN2 Download speed exceed <input type="text" value="0"/> Kbps	WAN1 Download speed exceed <input type="text" value="0"/> Kbps

Note: WAN2 and LAN P1 share the P1 port. When WAN2 is enabled, P1 is used as WAN2.

Backup / Load Balance

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2910 3G Setup

■ Step 2: Connection Setup

WAN >> Internet Access

Internet Access

Index	Display Name	Physical Mode	Access Mode	
WAN1		Ethernet	Static or Dynamic IP	Details Page
WAN2		3G USB Modem	PPP	Details Page

WAN >> Internet Access

1. Select PPP

2. Click Detail Page

WAN 2

PPP Client Mode ☒ Enable ☐ Disable

SIM PIN code

Modem Initial String (Default: AT&FE0V1X1&D2&C1S0=0)

APN Name

Modem Dial String (Default: ATDT*99#)

PPP Username (Optional)

PPP Password (Optional)

Index(1-15) in Schedule Setup:
=> , , ,

3. Detail Setup

***In Some ISP, APN(Access Point Name) is important. It will select different service and result in different charge.**

***Ask your ISP for more information**

2910 3G Setup

■ Step 3: Online status

Online Status

System Status



System Uptime: 3:12:56

LAN Status

Primary DNS: 168.95.1.1

Secondary DNS: 168.95.192.1

IP Address	TX Packets	RX Packets
192.168.1.1	7227	6381

WAN 1 Status

Enable	Line	Name	Mode	Up Time	
Yes	Ethernet		Static IP	00:00:00	
IP	GW IP	TX Packets	TX Rate	RX Packets	RX Rate
172.17.3.53	172.17.3.2	0	0	0	0

WAN 2 Status

>> [Drop PPPoE](#)

Enable	Line	Name	Mode	Up Time	
Yes	3G USB Modem		3600000	0:02:14	
IP	GW IP	TX Packets	TX Rate	RX Packets	RX Rate
116.59.16.141	116.59.16.141	54	11	62	7

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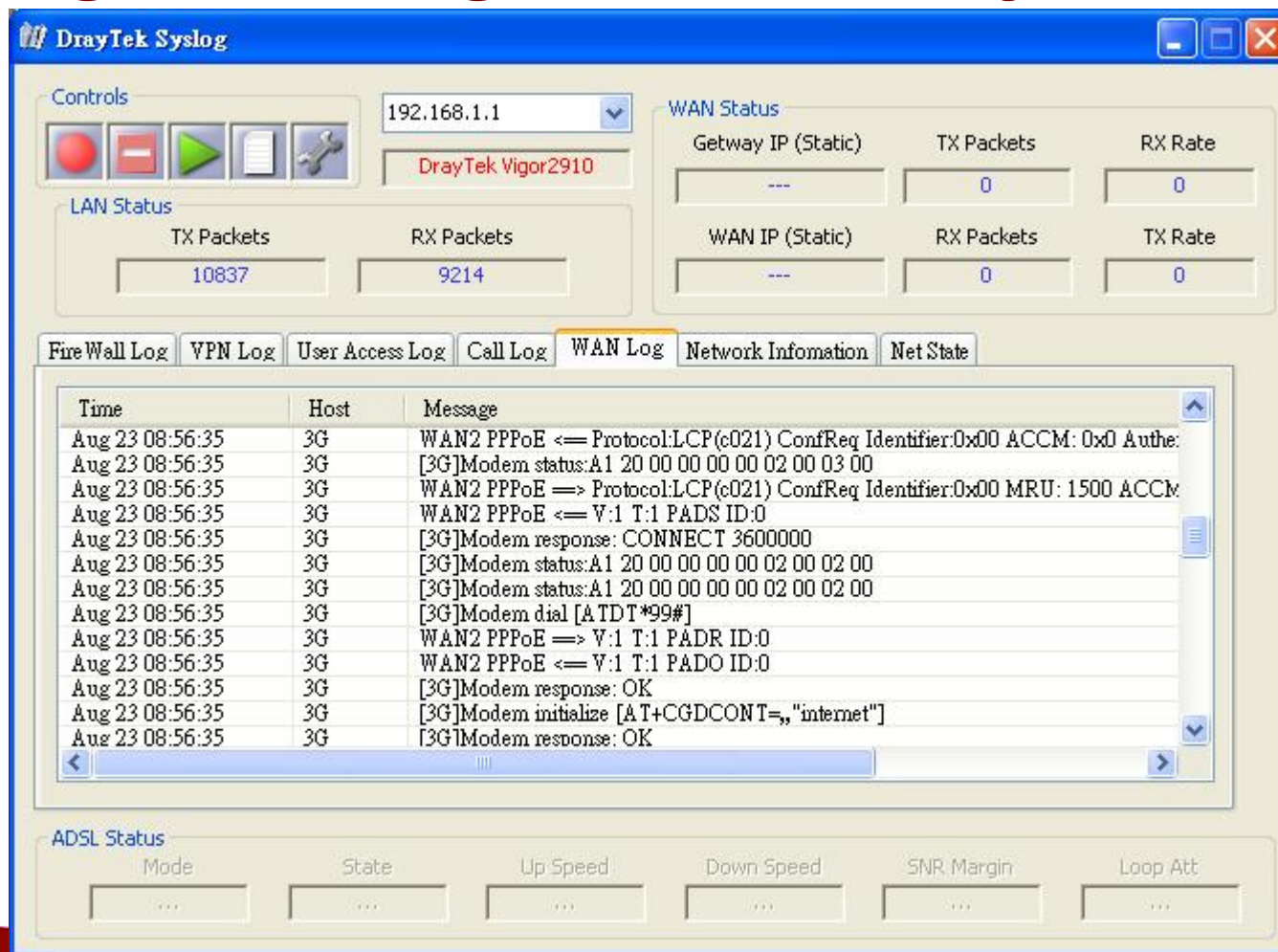
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Trouble Shooting

- Syslog: WAN log, send to DrayTek support



More Information

- Some information in <http://www.draytek.com>
 - How can you configure 3G network connection for Vigor2910 ?

http://www.draytek.com/support/support_note/router/application/general/08.php

- What types of 3G modem / cellphone compatible with Vigor router ?

http://www.draytek.com/support/support_note/router/faq/usb/10.php

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Conclusion

- **More USB Application to Improve Vigor**
 - **USB Storage (On going)**
 - Support FAT
 - Web/Ftp Server
 - VoIP Answering Machine
 - **USB WiMax (Planning)**
 - ...

Thank You