

Release Notes for DrayTek Vigor 2850 series (UK/Ireland)

Firmware Version	3.8.8.2 (Formal Release)
Release Type	Critical – Upgrade recommended immediately
Release Date	21 th May 2018
Build Date	21 th May 2018
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	232201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

Security Advisory <https://www.draytek.co.uk/support/security-advisories/kb-advisory-csrf-and-dns-dhcp-web-attacks>

Check your DNS and DHCP settings on your router. If you have a router supporting multiple LAN subnets, check settings for each subnet. Your DNS settings should be either blank, set to the correct DNS server addresses from your ISP or DNS server addresses of a server which you have deliberately set (e.g. Google 8.8.8.8). A known rogue DNS server is 38.134.121.95 - if you see that, your router has been changed.

New Features

None

Improvements

1. This firmware includes improvements to harden the web interface against attacks. We have become aware of specific attacks against router, including DrayTek models where hackers have altered specific settings relating to your DNS servers and DHCP settings. You should urgently check those settings on your router. If they appear to have been tampered with, correct them and change your admin password and for any other config anomalies. Restore a config backup if you have one (from prior to the attack). We continue to investigate this issue but the first priority was to issue updated firmware.

Known Issues

1. Before upgrading firmware, take a configuration backup. After upgrade to 3.6.8.6 it is not possible to revert and downgrade without resetting the unit. To downgrade from 3.6.8.6 firmware, reflash earlier firmware using .rst firmware and reload the configuration backup from the previous firmware version
2. PPTP VPN Passthrough for NAT to some types of internal PPTP VPN server may prevent a VPN establishing successfully

Firmware Version	3.6.8.6 (Formal Release)
Release Type	Critical – Upgrade recommended immediately
Release Date	24 th January 2017
Build Date	13 th January 2017
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	232201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

(None)

Improvements

1. Security improvements including one or more considered critical.

Known Issues

3. Before upgrading firmware, take a configuration backup. After upgrade to 3.6.8.6 it is not possible to revert and downgrade without resetting the unit. To downgrade from 3.6.8.6 firmware, reflash earlier firmware using .rst firmware and reload the configuration backup from the previous firmware version
4. PPTP VPN Passthrough for NAT to some types of internal PPTP VPN server may prevent a VPN establishing successfully

Firmware File Types

The ZIP file contains the firmware with two different file extensions, .ALL and .RST. The firmware is identical but the RST file contains factory default settings. If you install the ALL file, your router will retain all existing settings. If you use the RST file, all settings will be wiped from your router.

Upgrade Instructions

It is recommended that you take a configuration backup prior to upgrading the firmware. This can be done from the router's system maintenance menu.

To upgrade firmware, select '*firmware upgrade*' from the router's system maintenance menu and select the correct file. Ensure that you select the ALL file unless you want to wipe out your router's settings back to factory default.



Manual Upgrade

If you cannot access the router's menu, you can put the router into 'TFTP' mode by holding the RESET whilst turning the unit on and then use the Firmware Utility. That will enable TFTP mode. TFTP mode is indicated by all LEDs flashing. This mode will also be automatically enabled by the router if there is a firmware/settings abnormality. Upgrading from the web interface is easier and recommended – this manual mode is only needed if the web interface is inaccessible.

NOTE: ADSL Modem Codes

- For general purpose usage on UK lines, modem code 232201 is recommended.
 - For ADSL2+ Annex M lines, the latest modem code 2471201 is suggested.
 - For line speeds of less than 4Mbps, on lower quality lines a modem code with more conservative parameters, 211801 is suggested
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Firmware Version	3.6.8.5 (Formal Release)
Release Date	9th December 2016
Build Date	5th August 2016
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

1. Web Server and SSL VPN supports TLS 1.2
2. Added options in [System Maintenance] > [Management] to disable HTTPS management via TLS 1.0, TLS 1.1 or TLS 1.2

Improvement

1. Improved TCP SYN+FIN protection mechanism
2. Support for TR-069 HTTP/HTTPS trigger, available in [System Maintenance] > [TR-069] "Test with Inform" button
3. Resolved some issues with Web Portal function
4. WiFi Country Code could show incorrectly on some wireless clients
5. (2850Vn only) Improved handling of incorrect SIP messages

Known Issues

1. Before upgrading firmware, take a configuration backup. After upgrade to 3.6.8.5 it is not possible to revert and downgrade without resetting the unit. To downgrade from 3.6.8.5 firmware, reflash earlier firmware using .rst firmware and reload the configuration backup from the previous firmware version
2. PPTP VPN Passthrough for NAT to some types of internal PPTP VPN server may prevent a VPN establishing successfully

Firmware Version	3.6.8.2 (Formal Release)
Release Date	19th June 2015
Build Date	12th May 2015
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

(None)

Improvement

1. [System Maintenance] > [TR-069] now has a Wizard button to enter the address of the ACS server with the required URL.
2. DHCP Option 66 now supports special characters such as \$ (through CLI, using "srv dhcp option" command).
3. An issue that caused problems with LAN DNS and DNS Caching has been resolved.
4. Support for the MF825A USB modem.
5. Resolved a DHCP issue with [WAN] > [Multi-VLAN] - Port Based Bridge mode
6. Access List for router management was not working correctly when using a LAN to LAN VPN as the default route.
7. Resolved an issue with the Firewall that could stop users accessing the internet due to a session limit error under some circumstances.
8. User management was not working correctly when using User-Based mode.

Notes

The [Firewall]-[General Setup] menu now has an option to block or allow routed IPv4 and IPv6 packets:

If the firmware of the router is upgraded from 3.6.6(or before) to 3.6.8 firmware, .all and .rst firmwares will have different default settings for the incoming packets.

- 1) .all --> keep the routing settings in 3.6.6(or before), which allows both IPv4 and IPv6 routed traffic.
- 2) .rst --> block IPv4 and IPv6 routing packets from the WAN by default.

Known Issues

(None)

Firmware Version	3.6.8 (Formal Release)
Release Date	30th March 2015
Build Date	3rd February 2015
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

1. Wizards menu added.
2. [Diagnostics] > [DNS Cache Table] added to view / clear DNS cache entries (DNS Cache is used when router IP is used as DNS server by client devices).
3. When using RADIUS or LDAP for VPN authentication, LAN Subnet for those users is configured from [VPN and Remote Access] > [PPP General Setup].

Improvement

1. SSL3 now disabled in favour of TLS by default for SSL tunnels and web management.
2. Support for RFC3021 (Using a /31 Subnet Mask WAN interface).
3. Corrected issue that may have prevented fail over to a 3G Backup interface after 36 days of uptime.
4. SIP phones connected to the router's LAN could experience issues with registration under specific circumstances.
5. Added telnet command to disable/enable LAN ports - "port enable/disable x".
6. IPv6 routed traffic was incorrectly blocked by the firewall under some circumstances.
7. The router's TCP SYN attack protection has been improved.
8. DNS Filter is now able to show a block page.
9. TR-069 Parameters added for:
 - a. WAN: WAN Mode - Backup or Always On
 - b. LAN: DHCP Relay settings, Bind IP to MAC
 - c. VPN: Block/Pass Netbios Naming Packets, More Subnet - Create Phase2 SA for each subnet (IPSec)
 - d. Firewall: IPv6 Group/Object
 - e. SNMP
 - f. Diagnostics: Ping Diagnostics
 - g. Enable/Disable LAN ports
10. App Enforcement can now block:
 - a. Tunnel 0.2.3.25
 - b. Hotspot Shield 3.19
 - c. Telnet protocol when using Putty / Pietty
 - d. LINE IM client 3.6.0.32 on PC, 4.4.1 on mobile
11. Improvements made to Route Policy to support VPN LAN to LAN traffic.
12. [LAN] > [Web Portal Setup] URL Redirect now has an option so that users can be required to click OK to proceed.
13. [System Maintenance] > [Time and Date] Daylight Savings time start/end can be configured manually when using Internet Time (NTP)

Notes

The [Firewall]-[General Setup] menu now has an option to block or allow routed IPv4 and IPv6 packets:

If the firmware of the router is upgraded from 3.6.6(or before) to 3.6.8 firmware, .all and .rst firmwares will have different default settings for the incoming packets.

- 1) .all --> keep the routing settings in 3.6.6(or before), which allows both IPv4 and IPv6 routed traffic.
- 2) .rst --> block IPv4 and IPv6 routing packets from the WAN by default.

Known Issues

1. DNS issues if the PCs DNS Server is set to the Routers LAN IP.
The work around is to configure DHCP to assign a different IP Address as the DNS Server or disable the DNS Cache by setting
[Diagnostics]>[DNS Cache Table]> enable 'When an entry's TTL..' = 5 s

Firmware Version	3.6.6.1 (Formal Release)
Release Date	5th July 2014
Build Date	18th June 2014
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

(None)

Improvement

1. Corrected: CVE-2014-0224 CCS injection vulnerability.

Firmware Version	3.6.6 (Formal Release)
Release Date	8th Dec 2013
Build Date	18th Nov 2013
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

1. Support for IPv6 6in4 Static Tunnel service, IPv6 6rd Tunnel service and IPv6 NTP service.
2. [Load Balance Policy] is replaced with [Load Balance/Route Policy] which has new features:
<http://www.draytek.co.uk/support/guides/kb-policy-routing-guide>
3. Supports LAN DNS Resolution, located under the [Application] menu
4. Supports DNS Filter, which allows filtering DNS based on a Web Content Filter profile:
<http://www.draytek.co.uk/support/guides/kb-dns-filter>
5. Added: "USB Device Status" for modem and disk.
6. Added: "USB modem support list" which lists the modems supported with the current firmware.
7. Added: "APPE Support List" which lists the applications that the Application Enforcement CSM can block.
8. Support wireless auto bandwidth limit.
9. Support LAN subnets access control.
10. Support for Sky MER <http://www.draytek.co.uk/support/guides/sky-mer-setup-guide>
11. Added: [WAN]-[Internet Access]-[Advanced] which allows configuration of DHCP options for the WAN interface
12. Added: IPsec multiple subnet using the More option in a VPN profile, now has an option to create multiple Phase2 SAs which improves compatibility with Cisco routers.

Improvement

1. Corrected: Port triggering can only work when the first profile has been configured.
2. Corrected: Session Limit may not work after enabling smart bandwidth limit.
3. Corrected: QoS Outbound for WAN1 doesn't recognize UDP 500, 1701, and 4500 when QoS for WAN2 is active.
4. Corrected: File Explorer will show 1KB when the file size is more than 2GB.
5. Corrected: If USB WAN is deactivated and a 3G modem is connected, the detection is improved.
6. Corrected: Shrewsoft VPN Client cannot connect twice from the same public IP address.
7. Corrected: Router doesn't re-dial out LAN to LAN VPN when VPN tunnel is down and VPN server is available again.
8. Corrected: All WCF profile contents show as empty when the Index 8 WCF profile name contains a space.
9. Corrected: Corrected an issue if user management policy rule was set to the 7th rule of any filter set.
10. Corrected: Could not create a new profile using the APP Enforcement Profile Wizard.
11. Corrected: A pop-up window shows "Old Password is wrong, please re-enter" after adding a new local user with administrator authority.

12. Corrected: SIP ALG now converts "Via" field in 200 OK packets.
13. Corrected: DHCP table showed an IP Address conflict when there was no conflict.
14. Improved: Improve NAT loopback performance.
15. Improved: Support auto removal of inactive DHCP clients, this is set using the "Retrieve IPs from inactive clients periodically" in a LAN profile.
16. Improved: Some ISPs send DHCP packets with TTL=1 value, the router now processes these correctly.
17. Improved: Bind IP to MAC function.
18. Improved: UPnP functionality.
19. Improved: Stability of mechanism for fetching the Diagnostics - NAT Session Values from an ACS Server.
20. Improved: Support for "www.lusosms.com" as an SMS service provider.
21. Improved: Support for special character "." in the Wireless SSID.
22. Improved: Support telnet commands such as "portmuptime" and "vigorddns".
23. Improved: Support more modems such as vodafone K3772-Z, Infinity IW-021, Option iCON XY modems.
24. Improved: Support GRE over IPsec keepalive which improves compatibility with Cisco routers.
25. Improved: Allow SSL VPN portal if SSL VPN service is enabled regardless of whether Management from the Internet is enabled or disabled.
26. Improved: Change the default setting from "Both: Pass" to "Either: URL Access Control First" on the URL Content Filter Profile page.
27. Improved: Modified DoS Defense default values.
28. Improved: App Enforcement: Updated pattern for Ultrasurf 13.01, else it will block some certificates.
29. Improved: App Enforcement: Support "Hotspot shield" v2.93 blocking.
30. Improved: App Enforcement: Support PPTV v3.3.8.0031 for new video and PPTV web blocking, LINE for PC and mobile phone blocking.
31. Improved: App Enforcement: Support embedded flash videos blocking.
32. Improved: Support TR-069 parameters for WLAN WDS.
33. Improved: Support TR-069 parameters displayed on Diagnostics >> Routing Table.
34. Improved: Add a "LinkStatus" key to the TR-069 WAN information to indicate accurate connection status.
35. Improved: Call Barring now allows a 10 to 29 digit number in the Specific Number field.

Known Issues

1. The SSL VPN function uses port 443. If NAT redirecting port 443 to an internal server please change the routers SSL VPN port via [SSL VPN]>[General Setup]
Please see http://www.draytek.co.uk/support/kb/kb_sslvpn_troubleshooting.html
2. The [NAT]-[Address Mapping] has been replaced by [Load Balance/Route Policy], check the Policy Routing guide for details: <http://www.draytek.co.uk/support/guides/kb-policy-routing-guide>
3. The behaviour of [Load Balance/Route Policy] is different from previous versions, check the Policy Routing guide for details of how that affects Inter-LAN routing and VPNs:
<http://www.draytek.co.uk/support/guides/kb-policy-routing-guide>

Firmware Version	3.6.4 (Formal Release)
Release Date	5th June 2013
Build Date	8th May 2013
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1414c3
Locale	UK Only / Annex A Only

New Features

1. Added Web Portal (displays message on connection) in [LAN] – [Web Portal Setup]
2. Added Wireless Configuration Wizard.
3. SSL VPN support up to 5 dial-in users
4. Support IPv6 printer service.
5. Support IPv6 for NTP.
6. Added a VLAN failsafe option to the [LAN] – [VLAN] section
7. Support Editing DHCP Options (ASCII/Hex) on web user interface.
8. Support WLAN IGMP snooping.
9. Added an “Always On” checkbox for IPv6 – AICCU tunnel
10. Add VPN interface in load balance policy.
11. Add VoIP Inter-digit timeout for TR-104.
12. Added a telnet command to set which ADSL modulation types are used with the Modulation set to Multimode:

```
% adsl automode [add|remove|set|default|show][adsl_mode]
```

Improvement

1. Routers handling of AICCU neighbour packets.
2. Upgrade VDSL Firmware to v1414c3 for IOP issue.
3. VDSL upload throughput improved
4. Support blocking RaidCall (v7.0), PPStream (v2.7.0.1512) and Teamviewer (v8.0.16284, v7.0.15723) for CSM.
5. Prevents PPTP log in if LAN-to-LAN profile enabled without setting username/password.

Known Issues

1. The SSL VPN function uses port 443. If NAT redirecting port 443 to an internal server please change the routers SSL VPN port via [SSL VPN]>[General Setup]
Please see http://www.draytek.co.uk/support/kb/kb_sslvpn_troubleshooting.html

Firmware Version	3.6.3 (Formal Release)
Release Date	2nd Jan 2013
Build Date	22nd November 2012
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
VDSL Firmware Version	1412f0
Locale	UK Only / Annex A Only

New Features

1. SNMPv3 support added
2. Support for QoS DiffServ retagging added
3. Support new encryption method for configuration.

Improvements

1. QoS function enhanced for VoIP application
2. Developed new object and service for SMS application.
3. Customised profile for DDNS supported.
4. Mail Alert content modified to identify the device name and the IP address of the router.
5. Support DNS manual settings for LAN2/LAN3/LAN4.
6. Remote recording for T-com IPTV does not work.
7. Removed ADSL2/2+ Annex M from "multimode" auto-detect mechanism due
 1. to interoperability issues that could cause incorrect modulation to be set. For
 2. Annex M lines please manually set the modulation to Annex M instead of multimode.

Firmware Version	3.6.2 (Formal Release)
Release Date	15th June 2012
Build Date	4th May 2012
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
Locale	UK Only / Annex A Only

New Features

1. Support ISDN backup.
2. Support Smart Bandwidth Limit.
3. Support Port Triggering.
4. Support DSCP Re-tag according to QoS class.

Improvement

1. Improved: Change VDSL firmware version to 1412f0 - Improves compatibility with BT FTTC
2. Improved: Show status on VPN profile.

Firmware Version	3.6.1 (Formal Release)
Release Date	1st March 2012
Build Date	15th February 2012
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	2471201
Locale	UK Only / Annex A Only

New Features

1. Support LDAP authentication for VPN and User Management
2. Support SMS Alert
3. Support Syslog to Email
4. Support Smart Monitor (30)
5. Support wireless web portal
6. Support VPN trunk backup and load balance features
7. Supports IPv6

Firmware Version	3.6.0 (First Firmware Release)
Build Date	12th December 2011
Applicable Models	Vigor2850, Vigor2850n, Vigor2850Vn
ADSL Modem Code	232201 (Standard)
Locale	UK Only / Annex A Only

First Firmware Release for this model

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