Release Notes for DrayTek Vigor 3910 (UK/Ireland)

Firmware Version	3.9.7.2 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
	Note: A previous firmware (3.9.6.3) was a critical release. This f/w
	includes all changes/improvements that were in 3.9.6.3.
Build Date	21 st December 2021
Release Date	13 th January 2022
Revision	63_662_dbe6d00
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

New Features

(None)

Improvements

- 1. Improved LAN-to-LAN throughput for OpenVPN tunnels
- 2. PPPoE dial-in facility now supports up to 200 concurrent connections, up from 20
- 3. Performance improvements for packet captures in [LAN] > [Port Mirror / Packet Capture] and debug log data in [Diagnostics] > [Debug Logs]
- 4. Resolved an issue that could cause problems with certificate renewal in some circumstances
- 5. DNS queries going through the router's DNS did not include the CNAME alias
- 6. Conditional DNS Forwarding did not work correctly through a VPN tunnel
- 7. Improved handling of BGP routing with Cisco routers using a 4-Byte AS number
- 8. The router will automatically re-generate its self-signed certificate prior to the original expiring, so that the router's self-signed certificate cannot expire while in use
- 9. VigorAP access points managed through the router's [Central Management] > [AP] > [Status] would show as offline if a Management VLAN was set up on the VigorAPs

Known Issues

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's
 configuration and make a note of the "To" and "Failover" settings for Route Policy rules
 configured on the router. These settings may be changed to incorrect values once the
 firmware has been downgraded. Verify the Route Policy configuration is correct after
 downgrading.
- Firmware downgrade affects Bind IP to MAC:
 If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings.
 These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware File Types

The file name of the firmware controls which upgrade type is performed.

If the file name is unchanged (e.g. xxxx.all) then the upgrade will just upgrade the firmware, whereas renaming the firmware to a .rst extension will wipe all settings back to factory defaults when upgrading the firmware.

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 <u>unless</u> 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.

Firmware Version	3.9.7.1 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
	Note: A previous firmware (3.9.6.3) was a critical release. This f/w
	includes all changes/improvements that were in 3.9.6.3.
Build Date	11 th October 2021
Release Date	26 th October 2021
Revision	54_625_7ce12ae
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

- 1. Support for IKEv2 fragmentation to improve IKEv2 EAP compatibility
- 2. Email notifications can be sent when a VPN remote dial-in user tunnel is established

Improvements

- 1. Area ID 0 for OSPF is now supported
- 2. Increase IGMP proxy and IGMP snooping table

Connectivity and System stability:

- 3. In some circumstances WAN failover feature would not work
- 4. Current System Time would not display correct time
- 5. An issue of probable leakage caused by VPN CGI
- 6. Router would not respond when IPsec was used in some circumstances
- 7. IKE buffer mechanism improvements for IPsec Peer ID configuration
- 8. Fixed high CPU usage caused by blank gateway WAN IP address
- 9. Improved compatibility with IKEv2 Google Cloud
- 10. Local hosts could not access the Internet via WAN IP (configured with an Alias IP)

VPN:

- 11. Improved IKEv2 VPN with a static virtual IP configuration (My WAN IP / Phase 2 Network ID)
- 12. Remote VPN Gateway can be defined by a Domain Name (previously only a static IP address was accepted)
- 13. SSL VPN stability improvements
- 14. IKEv2 EAP Host to LAN VPN connection stability improvements
- 15. RADIUS authentication is bypassed for connections matching VPN LAN to LAN profile
- 16. Configuration of the VPN mOTP could cause unexpected errors
- 17. Route policy didn't bypass default VPN route
- 18. IPsec multiple SA VPN compatibility improvements (e.g. Juniper vSRX)
- 19. IKEv2 EAP rekey failed when the Limit Connection option was in use
- 20. Sending DNS queries to the router via VPN (OpenVPN, IKEv2 EAP) improvements
- 21. The VPN Dial-out profile type was changed to IKEv2 when importing the IKEv2 EAP profile
- 22. VPN trunk (failover) did not send packets when one of the WANs is down
- 23. Remote Dial-In IKEv2 EAP couldn't connect if VPN profile specified the Remote VPN Peer IP

24. LAN access to the router did not work when a dial-out IKEv2 VPN active profile was set with remote network 0.0.0.0

Others:

- 25. IP database for country objects updated
- 26. VPN Mail Alert log will include Source IP and the total connected time information
- 27. RADIUS authentication log improvements
- 28. For LAN to WAN topology OSPF did not exchange the routing LAN subnets details
- 29. Clients could not access Internet if Gateway was located on BGP peer network
- 30. Brute Force Protection for VPN (IKEv2 EAP/SSL) was not applied to invalid VPN usernames
- 31. PPPoE client could not access the Internet when PPPoE server was set with a VLAN tag
- 32. The local user account in [System Maintenance] > [Administrator Password] login failed if another local user account was deleted
- 33. NAT loopback could fail when LAN in routing mode or IP routed subnet were enabled
- 34. Routed streaming traffic could stop after 10 minutes

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- 2. Firmware downgrade affects Bind IP to MAC:

 If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings.

 These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.6.3 (Formal Release)
Release Type	Critical – Upgrade recommended immediately
Build Date	06 th July 2021
Release Date	08 th July 2021
Revision	9_454_3f658b8
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

(none)

Improvements

1. Improve the WebGUI security.

Please see the security advisory on https://www.draytek.co.uk/support/security-advisories/kb-advisory-jul21

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
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Firmware Version	3.9.6.2 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	14 th May 2021
Release Date	08 th July 2021
Revision	1644_436_312e1ad
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

1. Routed subnet traffic can be load-balanced

Improvements

- 1. Improved the ping response time
- 2. Weight and Prepend options for BGP added in [Routing] > [BGP] > [Neighbour Setup]
- "Downtime Limit" for VPN Tunnel notifications added for [Objects Setting] > [Notification Object]
- 4. Username and password for both LAN-to-LAN and Remote Dial-In VPN profiles are increased to 26 characters
- 5. Router did not route VPN traffic correctly if dial-out WAN IP is used in IP routed subnet
- 6. Default rule with WCF DNS Filter was not applied after firmware upgrade to 3.9.6
- 7. In some circumstances route policy could not bypass the VPN default route
- 8. An active IPSec tunnel to a 3rd party VPN endpoint would reconnect every 60 minutes
- 9. Ping Detect option on [Diagnostics] > [Traffic Graph] page did not display any data
- 10. In some circumstanced RADIUS server authentication would fail
- 11. Wake on LAN sent from WAN did not work if the router was rebooted
- 12. VPN traffic stopped working after reconnecting PPPoE (WAN interface)
- 13. Accessing the WUI via mOTP by local administrator improvements
- 14. Fixed configuration of TR069 and Time and Data settings when using WAN IP Alias
- 15. DMZ host could not access the Web server in another LAN
- 16. Packets would still reach LAN DMZ host after disabling DMZ setting from WUI
- 17. VPN LAN-to-LAN traffic was incorrectly classified as VoIP traffic in Quality of Service
- 18. Traffic of LAN host were not sent to NATed IPsec Xauth tunnel when the policy-route rule was enabled
- 19. WAN's static IP can be set without specifying a gateway
- 20. RADIUS VPN authentication timeout interval can be manually configured
- 21. A remote VPN gateway can be specified by Domain Name
- 22. Mail Service Object supports StartTLS
- 23. A static virtual IP can be configured for IPsec IKEv2 NAT on LAN to LAN VPN

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- 2. Firmware downgrade affects Bind IP to MAC:

 If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings.

 These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.6 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	17 th February 2021
Release Date	23 rd March 2021
Revision	1540_314_3fbf1a1
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

- 1. Increased the router's capabilities:
 - a. Firewall: Increased firewall filter sets from 12 to 50
 - b. LAN Subnets: Increased from 50 to 100 total subnets
 - c. WAN IP Alias: Increased from 32 per-WAN to 300 per-WAN
- 2. Add IGMP proxy/snooping, IPv6 to fast path
- 3. Add USB support (storage only, e.g., Syslog to USB disk, web portal)
- 4. Support WAN Budget
- 5. Support Port-based Bridge for [WAN] > [Multi-VLAN]

Improvements

- 1. Updated MyVigor authentication method used for Web Content Filter license validation
- 2. Support for SNMP monitoring of VPN Tunnels
- 3. Added RADIUS with 802.1x authentication
- 4. ICMP ping performance improved (to local router only)
- 5. Changed the DHCP server pool size from 1K to 4K
- 6. Support NAT/routing table/load-balance for virtual WAN
- 7. Support for multiple untagged subnets on the same physical port
- 8. Schedules can now be applied to profiles for VPN Remote Dial-In
- 9. Added an option to limit concurrent Remote dial-in user connections allowed per profile

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- 2. Firmware downgrade affects Bind IP to MAC:

 If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings.

 These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.2.5 (Formal Release)
Release Type	Critical – Upgrade recommended immediately
Build Date	16 th December 2020
Release Date	26 th January 2021
Revision	1497_94184
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

1. Brute Force Protection can now be applied to the router's VPN services

Improvements

- 1. Improved precision of System Uptime counter
- 2. OpenVPN WUI error fixed
- 3. Corrected: private keys used in the RSA certificate
- 4. Improved mechanism of memory management
- 5. Improved operation of bandwidth limit auto-adjust
- 6. WANs 5-8 could not use prefix MAC address other than "00-1d-aa-"
- 7. Improvements to L2TP protocol VPN server

- 1. Firmware downgrade affects Route Policy rule's "Failover" and "To" settings: If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- 2. Firmware downgrade affects Bind IP to MAC:

 If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings.

 These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.2.4 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	8 th October 2020
Release Date	3 rd November 2020
Revision	1456_93809
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

1. Support for BGP prepending

Improvements

- 1. LAN to LAN VPN profile improvements: "Enable PING to keep IPsec tunnel alive" option for all LAN subnets added
- 2. OpenVPN WUI error fixed
- 3. Corrected: rekey for IPsec XAuth connection
- 4. TX/RX display improvements for virtual WANs
- 5. Router did not respond to SNMP requests when SNMP Host IP subnet was larger than /32
- 6. In some conditions with High Availability, config sync could cause the secondary router to restart more frequently than necessary
- 7. Router's Mail Alert compatibility improved with Office365, Hotmail, and Outlook mail servers
- 8. VLANs 15 to 19 did not appeared properly on [Central Management] > [Switch] > [Profile]
- 9. Improved VoIP connections and Ping response time on WAN/LAN interfaces while VPN is established
- 10. The new firmware upgrade process required an additional reboot to update

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's
 configuration and make a note of the "To" and "Failover" settings for Route Policy rules
 configured on the router. These settings may be changed to incorrect values once the
 firmware has been downgraded. Verify the Route Policy configuration is correct after
 downgrading.
- 2. Firmware downgrade affects Bind IP to MAC:
 - If downgrading from 3.9.2.x firmware to 3.9.1, take a backup of the Bind IP to MAC settings. These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.2.3 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	11 th August 2020
Release Date	17 th September 2020
Revision	1332_90943
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

(none)

Improvements

- 1. Ports P1 and P2 support 1G AN mode that can be selected in [Port Setup] section
- 2. The Router's self-signed certificate will change upon upgrade for compatibility with new browser certificate requirements.
 - Starting from September 2020, many client OS & browsers will limit publicly trusted TLS server certificate lifetime to 398 days or less, and connections will be rejected if certificates exceed this. This firmware patch will automatically re-sign all self-signed certificate lifetimes to 395 days (was 2 years or longer in older versions)
- 3. Improved fragments/buffer handling mechanism
- 4. LAN to LAN IPsec VPN would drop in some circumstances
- 5. Improved stability of WAN connection
- 6. An issue of DHCP obtaining wrong gateway address

Known Issues

- 3. Firmware downgrade affects Route Policy rule's "Failover" and "To" settings: If downgrading from 3.9.2.2 firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- 4. Firmware downgrade affects Bind IP to MAC:

If downgrading from 3.9.2.1 or 3.9.2.2 to firmware to 3.9.1, take a backup of the Bind IP to MAC settings. These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.2.2 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	3 rd June 2020
Release Date	25 th June 2020
Revision	1332_90943
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

(none)

Improvements

- VPN connections can now be sorted in [VPN and Remote Access] > [Connection Management]
- 2. Improved handling of large DHCP packets
- 3. Resolved a socket issue that could affect connectivity when TR069/STUN DNS lookups failed
- 4. In some specific scenarios, some IPsec VPN tunnels could not pass traffic when many IPsec VPN tunnels were active
- 5. VPN connections from Windows IKEv2 EAP clients with static IP assignments could lose VPN network access after IPsec rekey
- 6. Web interface could sometimes display lower CPU usage than real CPU usage

- Firmware downgrade affects Route Policy rule's "Failover" and "To" settings:
 If downgrading from 3.9.2.2 to firmware to 3.9.2.1 or earlier, take a backup of the router's configuration and make a note of the "To" and "Failover" settings for Route Policy rules configured on the router. These settings may be changed to incorrect values once the firmware has been downgraded. Verify the Route Policy configuration is correct after downgrading.
- Firmware downgrade affects Bind IP to MAC:
 If downgrading from 3.9.2.1 or 3.9.2.2 to firmware to 3.9.1, take a backup of the Bind IP to MAC settings. These settings will be cleared during the downgrade process. The Bind IP to MAC configuration can then be imported back into the router.

Firmware Version	3.9.2.1 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	10 th April 2020
Release Date	17 th April 2020
Revision	1330_89655
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

- 1. Increased maximum number of sessions supported, up to 1 million. To adjust the settings, go to [System Maintenance] > [NAT Sessions] section.
- 2. Router can now be managed by VigorACS 2 (latest version)

Improvements

1. Improved mechanism for VPN connections

Known Issues

1. If you need to downgrade the firmware to 3.9.1, take a backup of the Bind IP to MAC settings

Firmware Version	3.9.2 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	21st February 2020
Release Date	2 nd March 2020
Revision	1300_88674
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

- 1. Support for DrayTek VPN Matcher service:
 - Helps VPN clients and routers connect to a DrayTek VPN router, which connects to the Internet through a firewall or additional NAT router without port forwarding, which would not otherwise be able to accept VPN connections
 - b. Suitable for usage with Cone NAT environments
 - c. Supports LAN to LAN and Remote Dial-In User VPN connections
 - d. Accessible from [VPN and Remote Access] > [VPN Matcher]
- 2. Support for interchangeable LAN/WAN interfaces
- 3. Added [Central Switch Management] > [Switch Management] to manage compatible VigorSwitches; up to 30 devices
- 4. Added [Central AP Management] > [AP Management] to manage compatible VigorAPs; up to 50 devices
- 5. Support added for LAN port mirror and WUI packet capture
- 6. Support for console menu under LAN

Improvements

- 1. Increased DHCP pool from 1021 up to 4K
- 2. Improved PPTP acceleration up to 320Mbps
- 3. Improved SSL VPN acceleration up to 1.6Gbps
- 4. Improved VPN Trunk (GRE over IPsec) acceleration
- 5. Mail Alert function now supports StartTLS
- 6. Added APP QoS for Bandwidth Management

Known Issues

(None)

Firmware Version	3.9.1.3 (Formal Release)
Release Type	Regular – Upgrade recommended when convenient
Build Date	6 th February 2020
Release Date	14 th February 2020
Revision	1286_88265
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

(None)

Improvements

- 1. WAN port status mechanism improved
- 2. Handling of incorrect router configuration improved
- 3. Dial-in IPSec Aggressive VPN connection could not reconnect after a reboot
- 4. SSL VPN LAN to LAN did not forward packets with MTU 1395-1400
- 5. Improved MSS (Maximum Segment Size) for SSL VPN
- 6. Improved management of Hardware Accelerated sessions when WAN disconnects

Known Issues

(None)

Firmware Version	3.9.1.2 (Initial Release Firmware)
Release Type	Initial Release
Build Date	4 th December 2019
Release Date	11 th December 2019
Revision	1217_87018
Applicable Models	Vigor 3910
Locale	UK & Ireland Only

First Firmware Release for this model

New Features		
(None)		
<u>Improvements</u>		
(None)		

Known Issues

(None)

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