# Release Notes for DrayTek VigorAP 902 (UK/Ireland)

| Firmware Version  | 1.2.4   |
|-------------------|---|
| Release Type      | Regular – Upgrade recommended when convenient |
| Release Date      | 10 <sup>th</sup> July 2018                    |
| Build Date        | 21 <sup>st</sup> May 2018                     |
| Revision          | 8466  |
| Applicable Models | VigorAP 902                                   |
| Locale            | UK Only                                       |

#### **New Features**

(None)

# **Improvements**

- 1. Improved VigorACS compatibility when configuring AP Assisted Client Roaming settings
- 2. VigorACS could not display the full list of 5GHz wireless clients on the VigorACS [Dashboard]
- 3. Time settings configured on the VigorAP could not be displayed in VigorACS [Configuration] > [System] > [Time Settings]
- 4. TR-069 username setting on the VigorAP could not be displayed in VigorACS [Configuration] > [System] > [TR069 Settings]

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#### **Firmware File Types**

The ZIP file contains the firmware with a file extension of .ALL. If you install the ALL file, your access point will retain all existing settings.

# **Upgrade Instructions**

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

To upgrade firmware, select 'firmware upgrade' from the AP's system maintenance menu and select the correct file. The access point will perform the upgrade and automatically reboot once this completes.



# **Manual Upgrade**

If you cannot access the AP's menu, you can put the AP into 'TFTP' mode by holding the FACTORY RESET button 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  | 1.2.3.1                                       |
|-------------------|---|
| Release Type      | Regular – Upgrade recommended when convenient |
| Release Date      | 13 <sup>th</sup> December 2017                |
| Build Date        | 17 <sup>th</sup> November 2017                |
| Revision          | 7791  |
| Applicable Models | VigorAP 902                                   |
| Locale            | UK Only                                       |

EAPOL Key Retry Enable/Disable setting added to [Wireless LAN (2.4GHz/5GHz)] > [Security]
Disabling this setting can prevent WPA2 Key Reinstallation Attack (KRACK) attack vectors, for
more details please read this security advisory:
<a href="https://www.draytek.co.uk/information/our-technology/wpa2-krack-vulnerability">https://www.draytek.co.uk/information/our-technology/wpa2-krack-vulnerability</a>
(EAPOL Key Retry is set to Enabled by default and in previous firmware)

# <u>Improvements</u>

1. Improved AP Management interoperability with the Vigor 3900 & Vigor 2960 routers when managing the Access Point via HTTPS

# **Known Issues**

| Firmware Version  | 1.2.3   |
|-------------------|---|
| Release Type      | Regular – Upgrade recommended when convenient |
| Release Date      | 19 <sup>th</sup> October 2017                 |
| Build Date        | 19 <sup>th</sup> October 2017                 |
| Revision          | 7660  |
| Applicable Models | VigorAP 902                                   |
| Locale            | UK Only                                       |

- 1. Isolation between SSIDs and Bands (2.4GHz <-> 5Ghz) can now be enabled or disabled from [Wireless LAN] > [Advanced Setting]
- 2. Setting for 'Isolate Member with IP' added to [Wireless LAN] > [Advanced Setting] to control the behaviour of [Wireless LAN] > [General] > Isolate Member Enabled Block ARP packets from WLAN clients if isolate member set for SSID Disabled –Allow ARP packets from WLAN clients if isolate member set for SSID The advantage of 'enabled' behaviour is that clients will be blocked from using the LAN gateway as a proxy via which to communicate with other LAN clients
- 3. Support for extra TR-069 parameters
- 4. SNMP v2c (read-only) and v3 (read-write) support added in [System Maintenance] > [SNMP]
- 5. Web Portal added in [LAN] > [Web Portal] with click-through & redirection support
- 6. TR-069 Wizard added to automatically add URL suffix required for VigorACS
- 7. TLS 1.2 support added to TR-069 client

### **Improvements**

- 2. Improvements to Universal Repeater mode WPA2 security to protect against WPA2 Key Reinstallation Attack (KRACK), for more details please read this security advisory: https://www.draytek.co.uk/information/our-technology/wpa2-krack-vulnerability
- 3. Additional TR-069 parameters added for:
  - a. [System Maintenance] > [Management] settings
  - b. [Mobile Device Management] Detection, Policies and Statistics
  - c. [Applications] > [Temperature Sensor] graph data
- 4. Support for compression of Central AP Management (via router) data to improve management across remote links
- VigorACS could not add a Schedule profile through [Configuration] > [Advanced] > [Parameter Tree]
- 6. Corrected an issue with AP-assisted Client Mobility when using Minimum RSSI mode
- 7. Improvements to USB temperature sensor detection
- 8. SSID names now allow special characters (e.g., @#\$%^&\*)
- 9. Improved handling of IPv6 multicast packets and multiple SSIDs / VLANs
- 10. Central AP Management did not configure optimal settings for 11ac wireless clients when provisioning the VigorAP with the "Default" profile
- 11. VigorACS could not remove entries from the Access Control List if it was full (256 entries)
- 12. Sorting entries in Data Flow Monitor would increase the wireless client Total values

13. Adding entries to the Access Control List through the [Wireless LAN] > [Station List] would allow the ACL to contain over 256 entries, which is the functional limit of the ACL

# **Known Issues**

| Firmware Version  | 1.2.2   |
|-------------------|---|
| Release Type      | Regular – Upgrade recommended when convenient |
| Release Date      | 7 <sup>th</sup> August 2017                   |
| Build Date        | 7 <sup>th</sup> July 2017                     |
| Revision          | 7363  |
| Applicable Models | VigorAP 902                                   |
| Locale            | UK Only                                       |

- 1. Added TR-069 Parameters for:
  - a. [Wireless LAN (2.4GHz)] > [WMM Configuration]
  - b. [Bandwidth Management]
  - c. [Applications] > [Temperature Sensor Graph]
  - d. [Applications] > [Schedule]
  - e. [Applications] > [Apple iOS Keep Alive]
  - f. [Applications] > [Auto Switch On/Off Wi-Fi]
  - g. [LAN] > [Port Control]
  - h. [System Maintenance] > [Time and Date]
  - i. [System Maintenance] > [Management]

# <u>Improvements</u>

1. Improved VigorAP's DHCP client functionality

# **Known Issues**

Communication between wireless clients - Firmware versions 1.2.1 and 1.2.2 do not allow wireless clients on different SSIDs or different bands (2.4GHz <-> 5Ghz) to communicate with each other

| Firmware Version  | 1.2.1  |  |  |  |
|-------------------|--|--|--|--|
| Release Type      | Regular – Upgrade recommended when convenient                            |  |  |  |
|                   | Note: The previous firmware (1.2.0) was a <b>critical release</b> . This |  |  |  |
|                   | f/w includes all changes/improvements that were in 1.2.0.                |  |  |  |
| Release Date      | 8 <sup>th</sup> June 2017  |  |  |  |
| Build Date        | 10 <sup>th</sup> May 2017  |  |  |  |
| Revision          | 7088   |  |  |  |
| Applicable Models | VigorAP 902  |  |  |  |
| Locale            | UK Only  |  |  |  |

- 1. Support for extra TR-069 parameters
- 2. 5GHz Wireless LAN now supports WDS Bridge mode
- 3. Auto Channel Detection scheduler added for wireless Channel AutoSelect mode
- 4. Added mechanism to check connectivity to specified IP Address / Hostname and disable Wi-Fi if it is unavailable, in [Applications] > [Wi-Fi Auto On/Off]

#### **Improvements**

- 1. Updated HTTPS ciphers
- 2. Updated USB Temperature Sensor driver
- 3. Wireless clients now remain connected when updating [Wireless LAN] > [Access Control] configuration
- 4. Improved layout of [System Maintenance] > [Configuration Backup]
- 5. The VigorAP's configured name is now displayed in the page / tab title of the browser
- 6. Device Name was limited to 15 characters only, now allows up to 31 characters
- 7. Improvements to the Channel recommendation algorithm in Interference Monitor
- 8. Schedule system can now apply schedules overnight in a single schedule entry
- 9. Configuring Universal Repeater for 5GHz through Quick Start Wizard did not update SSID & Channel parameters when selecting from AP Discovery search results
- 10. Resolved an issue with setting Channel Width in [Wireless LAN (5GHz)] > [Advanced Setting]
- 11. Disabling then enabling LEDs on the VigorAP did not activate the LAN port LEDs
- 12. Resolved an issue with Internet access for SSIDs with VLAN tag and Isolate Member enabled
- 13. AP Monitor Mode could not be enabled in [Wireless LAN] > [AP Discovery]
- 14. Improved interoperability of "Isolate Member" function with some wireless clients
- 15. Performing a Speed Test could stop the web interface from responding
- 16. Wi-Fi Management probe responses were sent with an incorrect country code of "FR"

#### **Known Issues**

| Firmware Version  | 1.2.0                                      |  |  |
|-------------------|--|--|--|
| Release Type      | Critical – Upgrade recommended immediately |  |  |
| Release Date      | 26 <sup>th</sup> January 2017              |  |  |
| Build Date        | 16 <sup>th</sup> January 2017              |  |  |
| Revision          | 6740                                       |  |  |
| Applicable Models | VigorAP 902                                |  |  |
| Locale            | UK Only                                    |  |  |

- 1. LEDs on the AP can now be disabled from [System Maintenance] > [Management]
- 2. The number of clients allowed to connect can be limited per SSID
- 3. Mobile Device Management policies can now be applied per SSID
- 4. [Diagnostics] > [Interference Monitor] function added to view interference information of the active wireless channel or all wireless channels, to determine the clearest channel
- 5. [Diagnostics] > [Data Flow Monitor] added to view bandwidth usage of individual wireless clients
- 6. [Diagnostics] > [Station Airtime] added to view airtime usage of individual wireless clients
- 7. [Diagnostics] > [Station Link Speed] added to view statistics of link speeds for all clients
- 8. [Diagnostics] > [Station Traffic Graph] added to show data usage of each wireless client in a graph
- 9. The AP's Telnet interface can be disabled from [System Maintenance] > [Management]
- 10. Configuration files from the VigorAP 900 and VigorAP 810 can be imported
- 11. If the AP's DHCP server is disabled, the AP can now be configured to allow only a Trusted DHCP server IP to provide DHCP to wireless clients under [LAN] > [General Setup]

#### **Improvements**

- 1. Security improvements including one or more considered critical.
- 2. If the AP has its factory default password, the web interface will now advise to change it
- 3. Improved USB temperature sensor support
- 4. Improvements to the Quick Start Wizard
- 5. Improvements to AP Discovery function, with the recommended channel now determined from which has the least amount of detected interference / usage
- 6. Advanced wireless settings such as MAC Clone, TX Power % moved to [Wireless LAN] > [Advanced Settings]
- 7. Auto channel selection now has <u>Auto Channel Filtered Out List</u> to specify which channels should not be used by the AP when auto detecting which wireless channel to operate on
- 8. [Wireless LAN] > [Station List] now displays Vendor name derived from MAC address OUI
- 9. All SSIDs now have the default value of "3600" pre-set for [Wireless LAN] > [Security] Key Renewal Interval
- 10. Improvements to the display of data in [Diagnostics] > [Station Statistics]
- 11. Schedule function was not working correctly with configurations using a different "administrator" username
- 12. Resolved an issue that stopped the AP's web interface working correctly if the [RADIUS Setting] user list contained more than 7 users
- 13. VigorAP default VLAN tag parameter of "0" could not be applied via VigorACS

- 14. An error occurred when "&" character was used in a WLAN profile applied through Central AP Management
- 15. A 5GHz Universal Repeater connection could not be established if the pass-phrase of the network being connected to contained a ";" (semicolon) character
- 16. Resolved an issue with the AP's Speed Test function
- 17. Apple AirPrint could not detect printers connected to the AP in some situations
- 18. Improvements to WPA2/802.1x security mode
- 19. The default Channel Bandwidth value is now Auto 20/40MHz instead of 20MHz
- 20. Resolved an issue that could block IGMP streams for wireless clients
- 21. When the AP was configured in Universal Repeater mode, Apple AirPlay did not work
- 22. Some schedule configurations could cause the AP's LEDs to display incorrectly
- 23. Central AP Management could not apply wireless channels 8-11 to an AP
- 24. Resolved an issue with Central AP Management applying wireless profiles in some scenarios
- 25. Central AP Management for 5GHz applied 802.11a mode instead of 802.11ac
- 26. The AP could not be detected for Central AP Management in some scenarios
- 27. Resolved an issue that caused the AP to query DNS every 10 seconds for the configured NTP server when displaying the [System Maintenance] > [Time and Date] settings page
- 28. When Central AP Management was configured to Load Balance by Traffic, the client limit of an AP could not be disabled
- 29. Some schedule settings to enable/disable LEDs could cause the LEDs to display incorrectly
- 30. Incorrect RSSI values were sent to the Central AP Management router
- 31. [Wireless LAN 5GHz] > [Station List] could display incorrect Tx and Rx rates

### **Known Issues**

| Firmware Version  | 1.1.7.3          |
|-------------------|------------------|
| Release Date      | 7th October 2016 |
| Applicable Models | VigorAP 902      |
| Locale            | UK ONLY          |

(None)

# <u>Improvement</u>

1. ACS required two attempts to successfully write settings to AP immediately after AP reboot

# **Known Issues**

| Firmware Version  | 1.1.7.2         |
|-------------------|-----------------|
| Release Date      | 2nd August 2016 |
| Applicable Models | VigorAP 902     |
| Locale            | UK ONLY         |

1. Support for HTTPS CPE authentication with TR-069 (VigorACS)

#### **Improvement**

- 1. Improvements to Central AP Management authentication mechanism
- 2. Resolved an issue that stopped Windows 10 computers from reconnecting to a VigorAP when using WPA2/802.1x security and the EAP-TLS RADIUS functionality on the AP
- 3. When Registering with VigorACS, the AP's Device Name was not passed to VigorACS
- 4. When configuring SSID2 through VigorACS, this was not enabled correctly
- 5. When configuring a VLAN tag for an SSID through VigorACS, this was not displayed correctly on the VigorAP WUI

#### **Known Issues**

| Firmware Version  | 1.1.7.1       |
|-------------------|---------------|
| Release Date      | 25th May 2016 |
| Applicable Models | VigorAP 902   |
| Locale            | UK ONLY       |

- 1. Support for Dynamic Frequency Selection on 5GHz wireless interface, allows use of channels 52-64 and 100-140
- 2. Band Steering added (requires same SSID & PSK on both 2.4GHz & 5GHz), to help 5GHz capable clients connect to the faster 5GHz band
- 3. [Wireless LAN] > [Station List] > [Neighbour] now shows Vendor names
- 4. [Central AP Management] > [Status of Settings] updated with RSSI Threshold
- 5. RTS Threshold and Fragment Length can be configured from [Wireless LAN] > [Advanced Setting]
- 6. Mobile Device Management added, to control connections to the AP from mobile devices, PCs / Laptops and unknown devices
- 7. Schedule to enable or disable wireless now supports controlling 2.4GHz or 5GHz (Radio), SSID 2, SSID 3 and SSID 4 in a schedule entry
- 8. Schedule now supports Start Time and End Time to set duration instead of changes triggered by the next schedule entry
- 9. [Wireless LAN] > [Roaming] has new AP-assisted Client Roaming options to disassociate clients based on RSSI (recommended) or data rate
- 10. [Diagnostics] > [Station Statistics] added to display number of wireless clients nearby and connected to the AP on an hourly, daily or weekly basis
- 11. RTS Threshold and Fragment Length can be configured from [Wireless LAN] > [Advanced Setting]

# <u>Improvement</u>

- 1. Session validation method improved in Web UI
- 2. When selecting 5GHz channels that require Dynamic Frequency Selection (DFS), the AP will show a warning message in the WUI, indicating when the AP will begin broadcasting on the selected frequency
- 3. When using VLAN tags on SSIDs, the access point was not passing these through correctly

#### **Known Issues**

| Firmware Version  | 1.1.5.2 (First Release) |
|-------------------|-------------------------|
| Release Date      | 18th May 2016           |
| Applicable Models | VigorAP 902             |
| Locale            | UK ONLY                 |

# **Known Issues**

- 1. 5GHz Wireless Channels currently supported are 36 to 48
- 2. Dynamic Frequency Selection (support for channels 52-64 and 100-140) will be added in a later firmware release

First Firmware Release for this model

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