

## **Release Notes for DrayTek VigorAP 900 (UK/Ireland)**

Firmware Version	1.2.3
Release Type	<b>Regular</b> - Upgrade recommended when convenient
Release Date	16 <sup>th</sup> January 2018
Build Date	3 <sup>rd</sup> January 2018
Revision	7936
Applicable Models	VigorAP 900
Locale	UK Only

### **New Features**

1. 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:  
<https://www.draytek.co.uk/information/our-technology/wpa2-krack-vulnerability>  
(EAPOL Key Retry is set to Enabled by default and in previous firmware)
2. Isolation between SSIDs and Bands (2.4GHz <-> 5GHz) can now be enabled or disabled from [Wireless LAN] > [Advanced Setting]
3. Support for extra TR-069 parameters
4. Support for HTTPS management via TLS 1.2

### **Improvements**

1. Support for configuration of Channel Width and other parameters through Central AP Management
2. Samsung and OPPO mobile devices can now be recognised by Mobile Device Management
3. Additional TR-069 parameters added for:
  - a. [System Maintenance] > [Management] settings
  - b. [System Maintenance] > [SNMP] settings
  - c. [Mobile Device Management] Detection, Policies and Statistics
  - d. [Applications] > [Temperature Sensor] graph data
  - e. [LAN] > [General Setup] settings
4. Schedule entries created through VigorACS could not be viewed in the AP's web interface
5. Channel Width renamed to Channel Bandwidth in [Wireless LAN] > [Advanced Setting]
6. Options in [Wireless LAN] > [Roaming] could not be read or displayed through VigorACS
7. VigorACS could not display Wireless LAN 5GHz data Transmitted and Received values
8. VigorACS can now display VigorAPs connected through a DrayTek Vigor router as sub devices of that router in VigorACS Network View
9. The parameter values of "TotalSendByte" and "TotalReceiveByte" when read by VigorACS would prepend a space character before the numeric value
10. 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
11. Wireless Clients could access the Internet but could not ping each other when connected to an SSID with a VLAN tag configured

12. Improved interoperability with Apple Airplay when using the VigorAP in 5GHz Universal Repeater mode
13. Corrected an issue with AP-assisted Client Mobility when using Minimum RSSI mode
14. Improvements to USB temperature sensor detection
15. When using Browser Time to set the VigorAP's time, the time shown on the [Applications] > [Temperature Sensor Graph] would be incorrect
16. After changing some specific parameters with VigorACS, rebooting the VigorAP would give an incorrect response to VigorACS
17. VigorACS could not display or remove entries from the Access Control List if it was full (256 entries)
18. When AutoSelect was selected as channel setting for [Wireless LAN (2.4GHz)] > [General Setup], an error message of "Segmentation fault" would be shown when entering this CLI command "tr069\_client -t get InternetGatewayDevice.X\_00507F\_WirelessLAN\_AP.General"

#### **Known Issues**

(None)

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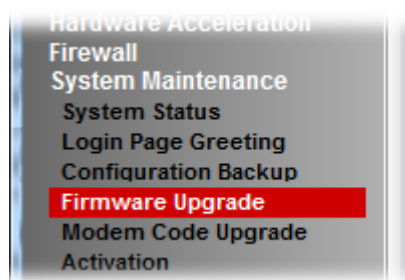
## **Firmware File Types**

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.

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Firmware Version	1.2.1.1
Release Type	<b>Regular</b> - Upgrade recommended when convenient
Release Date	17 <sup>th</sup> October 2017
Build Date	17 <sup>th</sup> October 2017
Revision	7644
Applicable Models	VigorAP 900
Locale	UK Only

### **New Features**

(None)

### **Improvements**

1. 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>

### **Known Issues**

Communication between wireless clients – Firmware version 1.2.1.1 does 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	<b>Regular</b> – 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> August 2017
Build Date	7 <sup>th</sup> July 2017
Revision	7365
Applicable Models	VigorAP 900
Locale	UK Only

## **New Features**

1. The VigorAP's configured name is now displayed in the page / tab title of the browser
2. 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]
  - j. LED enable / disable
3. SSID names now allow special characters (e.g., @\$%^&\*)
4. AP Bridge-WDS Operation Mode now supported on 5GHz interface

## **Improvements**

2. Improvements to the Quick Start Wizard
3. Schedule system can now apply schedules overnight in a single schedule entry
4. Improvements to some wording in the web user interface
5. Central AP Management can provision / configure [Wireless LAN] > [ing] settings
6. Improved layout of [System Maintenance] > [Configuration Backup]
7. Improved interoperability of 5GHz Wireless LAN with Apple devices (iPad/iPhone/iMac)
8. Resolved an issue that allowed IPv6 Multicast packets to pass between SSIDs
9. Configuring Universal Repeater for 5GHz through Quick Start Wizard did not update SSID & Channel parameters when selected from AP Discovery search results
10. LAN-B IP settings could not be configured with VigorAP Operation Mode set to 2.4GHz AP Bridge-Point to Point, AP Bridge-Point to Multi-Point, or 5GHz set to AP Bridge-WDS
11. Performing [Diagnostics] > [Speed Test] could stop the web interface from responding
12. Central AP Management can now configure 5GHz Tx Power
13. Improved responsiveness of [Diagnostics] > [Data Flow Monitor]
14. AP Monitor Mode could not be enabled in [Wireless LAN] > [AP Discovery]
15. Syslog IP address could not be configured through VigorACS / TR-069 parameter
16. Time and Date settings could not be configured through VigorACS / TR-069 parameter

17. Channel Width settings could not be configured through VigorACS / TR-069 parameter
18. Could not delete 1<sup>st</sup> entry in [Wireless LAN] > [Access Control] MAC Address Filter list
19. 5GHz Client Limit incorrectly allowed saving values out of range (3-64)
20. Device Name was limited to 15 characters only, now allows up to 31 characters
21. Resolved an issue that could stop Central AP Management WLAN Profile from being applied
22. Resolved a configuration mapping issue that could cause VigorAP to reset to factory default settings on saving settings
23. Improved VigorAP's DHCP client functionality
24. Changed "MHZ" to "MHz" in TR-069 parameter: WirelessLAN\_5G\_AP.General.ChannelWidth

### **Known Issues**

Communication between wireless clients – Firmware version 1.2.1 does not allow wireless clients on different SSIDs or different bands (2.4GHz <-> 5GHz) to communicate with each other

Firmware Version	1.2.0
Release Type	<b>Critical</b> – Upgrade recommended immediately
Release Date	12 <sup>th</sup> January 2017
Build Date	30 <sup>th</sup> December 2016
Revision	6678
Applicable Models	VigorAP 900
Locale	UK Only

### **New Feature**

1. LEDs on the AP can now be disabled from [System Maintenance] > [Management]
2. [Diagnostics] > [Interference Monitor] function added to view interference information of the active wireless channel or all wireless channels, to determine the clearest channel
3. [Diagnostics] > [Data Flow Monitor] added to view bandwidth usage of individual wireless clients
4. [Diagnostics] > [Station Airtime] added to view airtime usage of individual wireless clients
5. [Diagnostics] > [Station Link Speed] added to view statistics of link speeds for all clients
6. [Diagnostics] > [Station Traffic Graph] added to show data usage of each wireless client in a graph

### **Improvements**

1. Security improvements including one or more considered critical.
2. Improvements to AP Discovery function, with the recommended channel now determined from which has the least amount of detected interference / usage
3. Improvements to Quick Start Wizard
4. Advanced wireless settings such as MAC Clone, TX Power % moved to [Wireless LAN] > [Advanced Settings]
5. Auto channel selection now has **Auto Channel Filtered Out List** to specify which channels should not be used by the AP when auto detecting which wireless channel to operate on
6. [Wireless LAN] > [Station List] now displays Vendor name derived from MAC address OUI
7. All SSIDs now have the default value of “3600” pre-set for [Wireless LAN] > [Security] Key Renewal Interval
8. Improvements to the display of data in [Diagnostics] > [Station Statistics]
9. [Wireless LAN] > [Roaming] wording changed to Fast Roaming(WPA2/802.1x)
10. 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
11. Central AP Management could not apply wireless channels 8-11 to an AP
12. Schedule function was not working correctly with some AP configurations
13. Resolved an issue that stopped the [RADIUS Setting] user list displaying with more than 7 users entered in the [RADIUS Server] of the AP
14. When Central AP Management was configured to Load Balance by Traffic, the client limit of an AP could not be disabled
15. VigorAP default VLAN tag parameter could not be configured via VigorACS
16. The [Central AP Management] > [APM Log] “Clear” option was unable to clear the AP logs

Firmware Version	1.1.8.2
Release Type	<b>Regular</b> - Upgrade recommended when convenient
Release Date	7th October 2016
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

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

### **Known Issues**

(None)

Firmware Version	1.1.8.1
Release Date	27th July 2016
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

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

### **Improvement**

1. Improvements to Mobile Device Management Web UI icons
2. Improvements to Central AP Management authentication mechanism
3. 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
4. When Registering with VigorACS, the AP's Device Name was not passed to VigorACS
5. Resolved an issue with the [Diagnostics] > [Speed Test] utility
6. When WLAN LEDs were disabled from [System Maintenance] > [Management], the LEDs could turn back on by scheduling Wi-Fi on/off

### **Known Issues**

(None)

Firmware Version	1.1.8
Release Date	25th May 2016
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

1. SNMP support added via SNMPv3
2. Airtime Fairness now supports QoS when WMM is enabled
3. Airtime Fairness now has options to specify MAC addresses that are exempted from Airtime Fairness
4. [Wireless LAN] > [Station List] > [Neighbour] now shows Vendor names
5. 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]
6. The configuration backup can now be password protected & encrypted
7. Central AP Management Temperature Sensor functionality added, to allow Central AP Management router to view temperature status of a connected AP with a temperature sensor fitted
8. [Central AP Management] > [Status of Settings] updated with RSSI Threshold

### **Improvement**

1. Session validation method improved in Web UI
2. Airtime Fairness performance improved in wireless interference situations
3. Resolved an issue with backing up and restoring RADIUS Server config file
4. Resolved an issue with Schedule and Wifi Up/Wifi Down actions
5. Resolved an issue with DHCP working over a Universal Repeater link
6. WiFi Country Code could show incorrectly in some scenarios
7. Resolved LAN port issue that could occur when using Schedules
8. [Wireless LAN] > [General Setup] now shows MHz instead of MHZ
9. Resolved a display issue in [RADIUS Setting] that could occur when the AP was set to use itself as the RADIUS server
10. Universal Repeater mode can now pass Airplay / mDNS packets across the wireless link
11. Resolved display issues with [Wireless LAN] > [General Setup] Auto channel setting
12. Resolved an issue that could stop an AP using RADIUS / 802.1X authentication from passing traffic after changing 5GHz security settings
13. [Mobile Device Management] > [Statistics] graph colours now match device types
14. The AP's web interface will now warn users to change the default password

### **Known Issues**

(None)

Firmware Version	1.1.7.1
Release Date	30th March 2016
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

1. RADIUS server now supports EAP-TLS
2. Certificate Management added to [RADIUS Setting] menu, to generate a custom self-signed certificate for RADIUS server or WUI usage
3. The AP will automatically generate a unique self-signed certificate upon update
4. RTS Threshold and Fragment Length can be configured from [Wireless LAN] > [Advanced Setting]
5. Mobile Device Management added, to control connections to the AP from mobile devices, PCs / Laptops and unknown devices
6. 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
7. Schedule now supports Start Time and End Time to set duration instead of changes triggered by the next schedule entry
8. [Wireless LAN] > [Roaming] has new AP-assisted Client Roaming options to disassociate clients based on RSSI (recommended) or data rate

### **Improvement**

1. 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
2. GMT is now the default time zone for the VigorAP 900 in the UK
3. Added facilities for Central AP Management to control Band-Steering, Airtime Fairness, Client Limits and Roaming parameters
4. Universal Repeater mode can now pass NetBIOS name details across the wireless link
5. TX Power can now be set for 5GHz Wireless LAN
6. Improvements to the [Diagnostics] > [WLAN Statistics]
7. Airtime Fairness now has options to specify MAC addresses that are exempted from Airtime Fairness
8. Syslog output now indicates which band a wireless client is associating with
9. DHCP packets were not being passed to 5GHz wireless clients connecting to SSID2 with a VLAN tag specified on SSID2
10. Resolved a display issue in [Wireless LAN] > [Station List]
11. Resolved a display issue in [Wireless LAN] > [General Setup] for Channel Bandwidth
12. Resolved an issue that occurred under some circumstances with VLAN tags specified for wireless LANs on the VigorAP
13. Resolved a setting issue for Hardware Button and LED Enable/Disable settings in [System Maintenance] > [Management]
14. Windows 8 (or later) wireless clients could not connect to VigorAP with 802.1X authentication

15. Internal RADIUS Server of VigorAP did not work well with Windows 8.1 (or later) wireless clients
16. Improved session connection speed for Wireless LAN 2.4GHz clients

**Known Issues**

(None)

Firmware Version	1.1.6
Release Date	14th September 2015
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

1. AP Management now supports Event Logging, under [Central AP Management] > [APM Log]
2. Support for the AP Management - Dashboard feature on the Vigor 2860 / 2925
3. Added [Diagnostics] > [Traffic Graph] to show average bandwidth usage daily / weekly
4. Band Steering added (requires same SSID & PSK on both 2.4GHz & 5GHz), to help 5GHz capable clients connect to the faster 5GHz band
5. [Central AP Management] > [Status of Settings] added to indicate settings configured by the managing router
6. TR-069 parameters added to perform Central AP Management from VigorACS
7. Added MAC address blacklist / whitelist to [Central AP Management] > [Overload Management]
8. [Diagnostics] > [Station Statistics] added to display number of wireless clients nearby and connected to the AP on an hourly, daily or weekly basis
9. [System Maintenance] > [Configuration Backup] now supports converting configuration files from the VigorAP 800

### **Improvement**

1. Corrected an issue that could prevent some Apple devices from connecting via 5GHz
2. The Default Gateway address would not display correctly after configuring Universal Repeater mode with a static IP address
3. Resolved an issue with Idle time configuration in [Central AP Management] > [Overload Management]
4. Disabling wireless on an AP stopped the AP from being detected in AP management
5. Improved WDS configuration to stop duplicate settings from being entered
6. Incorrect message was displayed when selecting WEP/802.1x in the Quick Start Wizard for Wireless Security (5GHz)
7. [System Maintenance] > [System Status] displayed details relating to Universal Repeater mode when that mode was not selected
8. [Central AP Management] > [Status] was not displaying some details such as SSID and Encryption correctly
9. Auto Channel Mode - In some circumstances 2.4Ghz Auto Channel would only select Channel 1
10. Station List was not displaying RSSI details correctly
11. Selecting Point to Point or Point to Multipoint Bridge mode on the AP now hides settings that are not used (Roaming, Airtime Fairness, Band Steering, Session Control) under [Wireless LAN (2.4GHz)] menu
12. Universal Repeater mode displayed some incorrect data under [Online Status] for Channel and TX/RX Packets

13. [Wireless LAN (2.4GHz)] > [Station Control] did not work correctly for SSID 2, 3 and 4
14. Improved [RADIUS Server] format checking for RADIUS profiles

Firmware Version	1.1.5.3
Release Date	9th April 2015
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

1. Resolved an issue with 5GHz wireless that could cause connectivity issues on non-DFS channels after using AP Discovery.

Firmware Version	1.1.5.2
Release Date	18th March 2015
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

1. Resolved an interoperability issue with Apple wireless clients on 5GHz wireless interface.
2. Could not set Gateway IP on the AP when using Universal Repeater mode.

Firmware Version	1.1.5.1
Release Date	22nd January 2015
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

1. Changes made to default wireless profile parameters to comply with the EN 300 328 certification.

Firmware Version	1.1.5
Release Date	7th January 2015
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

1. Added [LAN]>[Port Control] to enable or disable LAN ports.
2. Support for Air-time Fairness, enabled under [Wireless LAN]>[Airtime Fairness].
3. Added [Wireless LAN]>[Station Control] to automatically disconnect clients after a specified time period.
4. Added [Wireless LAN]>[Status], which shows debug information for the wireless interface.
5. Added an option to Disable LEDs under [System Maintenance]>[Management].
6. Added an option to disable the Wireless LAN hardware button under [System Maintenance]>[Management].
7. Added an IGMP Snoop option on [Wireless LAN]>[General Setup] for each SSID.
8. Wireless LAN 5GHz - Support for DFS (Dynamic Frequency Selection). Please note that when selecting a DFS channel (52-140) the AP's 5GHz wireless will stop broadcasting for 60 seconds to determine whether the channel is allowed to be used, as per the DFS specification.

### **Improvement**

1. Improved: SSL3 now disabled in favour of TLS by default for web management.
2. Temperature sensor now supports Mail Alert notification.
3. Improvements to wireless in environments with multiple clients.
4. [Wireless LAN]>[Station List] now displays the Hostname of connected clients.
5. [Application]>[Schedule] has been updated with new Action settings.
6. A note has been added to [Central AP Management] to inform that the feature does not support LAN-B.
7. An issue with wireless clients connecting to the AP in Universal Repeater mode using DHCP has been resolved.
8. [LAN]>[General Setup] now shows the Default Gateway received when in DHCP mode.
9. SSID3 and SSID4 could not have WPA2/802.1x (Radius) security configured.
10. Changing the HTTP management port under [System Maintenance]>[Management] did not prompt to restart the AP.
11. When LAN-B is disabled by unticking "Enable 2 Subnet" under [Wireless LAN]>[General Setup], the LAN-B IP details are no longer displayed in the web interface.

Firmware Version	1.1.4.1
Release Date	21st July 2014
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

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

Firmware Version	1.1.4
Release Date	6th June 2014
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

(None)

### **Improvement**

1. Improvements to the temperature sensor chart in the web user interface.
2. Improvements to the the AP management web page.
3. Corrected: If there is data present in Device ACL list, loading an ACL profile would not overwrite it.
4. Corrected: Syslog could not be enabled on [System Maintenance] - [Syslog] in some scenarios.
5. Corrected: The associated MAC address for a wireless network is not displayed on Syslog.
6. Corrected: Central AP Management would not work correctly if the AP was set with an HTTP management port other than 80.
7. Corrected: When changing the HTTP management port, this would not show on the [System Maintenance] - [Reboot System] page.
8. Corrected: If the Station Limit function is disabled on the Vigor2860 APM, it would still be enabled on the VigorAP900

Firmware Version	1.1.3
Release Date	14th May 2014
Applicable Models	VigorAP 900
Locale	UK ONLY

### **New Features**

1. Support USB Temperature Sensor
2. Support setting AP Device name

### **Improvement**

1. A "hello" message would be sent to iPad on UDP port "5353" every 5 Seconds to keep Wi-Fi radio alive.
2. Router Name changed to Device Name for Universal Repeater operation mode.
3. The status of AP would be shown as "Offline" when the Universal Repeater was selected as the Operation Mode.
4. Support firmware upgrade via VigorACS SI.
5. Corrected authentication issue for clients after wireless status changed by schedule.
6. Improved compatibility with some DHCP servers
7. Corrected that 5GHz Wireless access control did not work after device reboot

Firmware Version	1.1.2 (first release)
Release Date	1st May 2014
Applicable Models	VigorAP 900
Locale	UK ONLY

**First Firmware Release for this model**

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