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# **airwaveapiclient Documentation**

***Release 0.1.7***

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# Introduction

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Airwaveapiclient is a utility tool for Aruba Networks AirWave users. This module connects to AirWave and gets the information such as the access point list, detail, client, etc.

## 1.1 Supported features

Currently airwaveapiclient can:

- Get access point list (XML).
- Get access point detail (XML).
- Get client detail (XML).
- Get rogue detail (XML).
- Get latest report (XML).
- Make access point graph url.





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## Requirements

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### 2.1 Python

- Python2.7
- Python3.3
- Python3.4

### 2.2 AirWave

Checked below versions.

- AirWave 7.5
- AirWave 8.0



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## Installation

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### 3.1 PyPI

```
1 pip install airwaveapiclient
```

### 3.2 Github

```
1 git clone https://github.com/mtoshi/airwaveapiclient
2 cd airwaveapiclient
3 sudo python setup.py install
```



## 4.1 AirWaveAPIClient

### 4.1.1 init

### 4.1.2 login

### 4.1.3 logout

### 4.1.4 ap\_list

### 4.1.5 ap\_detail

### 4.1.6 client\_detail

### 4.1.7 rogue\_detail

### 4.1.8 latest\_report

## 4.2 APList

### 4.2.1 init

## 4.3 APDetail

### 4.3.1 init

## 4.4 APGraph

**class** `ap_graph.APGraph` (*url*, *obj*)  
Aruba networks AirWave Graph.

Attributes:

**url** (**str**) AirWave URL.

**path (str)** Graph path.

**default\_start\_time(int)** Graph start default time.

**default\_end\_time(int)** Graph end default time.

#### 4.4.1 init

`APGraph.__init__(url, obj)`  
Initialize AirWaveAPIClient.

Args:

**url (str)** AirWave URL.

**obj (collections.OrderedDict)** APList element.

Usage:

```
>>> from airwaveapiclient import AirWaveAPIClient
>>> from airwaveapiclient import APGraph
>>> from airwaveapiclient import APList
>>>
>>> url = 'http://192.168.1.1/'
>>>
>>> airwave = AirWaveAPIClient(username='admin',
>>>                             password='xxxxx',
>>>                             url=url)
>>>
>>> airwave.login()
>>> ap_list = airwave.ap_list()
>>>
>>> objs = APList(ap_list)
>>> for obj in objs:
...     ap_graph = APGraph(url, obj)
...     ap_graph.client_count_802dot11an()
...
'http://x.x.x.x/nf/rrd_graph?
    end=0s&id=1&radio_index=2&start=-7200s&type=ap_client_count '
'http://x.x.x.x/nf/rrd_graph?
    end=0s&id=2&radio_index=2&start=-7200s&type=ap_client_count '
'http://x.x.x.x/nf/rrd_graph?
    end=0s&id=3&radio_index=2&start=-7200s&type=ap_client_count '
>>> airwave.logout()
```

#### 4.4.2 client\_count\_802dot11bgn

`APGraph.client_count_802dot11bgn(start=None, end=None)`  
RRD graph URL for access point client count of radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.client_count_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=1&start=-3600s&type=ap_client_count '
```

### 4.4.3 client\_count\_802dot11an

`APGraph.client_count_802dot11an` (*start=None, end=None*)

RRD graph URL for access point client count of radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.client_count_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=2&start=-3600s&type=ap_client_count '
```

### 4.4.4 client\_count\_802dot11ac

`APGraph.client_count_802dot11ac` (*start=None, end=None*)

RRD graph URL for access point client count of radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.client_count_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=2&start=-3600s&type=ap_client_count '
```

### 4.4.5 bandwidth\_802dot11bgn

`APGraph.bandwidth_802dot11bgn` (*start=None, end=None*)

RRD graph URL for access point bandwidth of radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.bandwidth_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=1&start=-3600s&type=ap_bandwidth'
```

#### 4.4.6 bandwidth\_802dot11an

**APGraph.bandwidth\_802dot11an** (*start=None, end=None*)

RRD graph URL for access point bandwidth of radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.bandwidth_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=2&start=-3600s&type=ap_bandwidth'
```

#### 4.4.7 bandwidth\_802dot11ac

**APGraph.bandwidth\_802dot11ac** (*start=None, end=None*)

RRD graph URL for access point bandwidth of radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.bandwidth_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=3&radio_index=2&start=-3600s&type=ap_bandwidth'
```

#### 4.4.8 dot11\_counters\_802dot11bgn

**APGraph.dot11\_counters\_802dot11bgn** (*start=None, end=None*)

RRD graph URL for access point dot11 counters of radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.



Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.dot11_counters_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=1&start=-3600s&type=dot11_counters'
```

#### 4.4.9 dot11\_counters\_802dot11an

`APGraph.dot11_counters_802dot11an` (*start=None, end=None*)

RRD graph URL for access point dot11 counters of radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.dot11_counters_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=1&radio_index=2&start=-3600s&type=dot11_counters'
```

#### 4.4.10 dot11\_counters\_802dot11ac

`APGraph.dot11_counters_802dot11ac` (*start=None, end=None*)

RRD graph URL for access point dot11 counters of radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.dot11_counters_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
end=-0s&id=3&radio_index=2&start=-3600s&type=dot11_counters'
```

#### 4.4.11 radio\_channel\_802dot11bgn

`APGraph.radio_channel_802dot11bgn` (*start=None, end=None*)

RRD graph URL for radio channel for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_channel_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=radio_channel'
```

#### 4.4.12 radio\_channel\_802dot11an

APGraph.**radio\_channel\_802dot11an** (*start=None, end=None*)

RRD graph URL for radio channel for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_channel_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=1&start=-3600s&type=radio_channel'
```

#### 4.4.13 radio\_channel\_802dot11ac

APGraph.**radio\_channel\_802dot11ac** (*start=None, end=None*)

RRD graph URL for radio channel for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_channel_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=1&start=-3600s&type=radio_channel'
```

#### 4.4.14 radio\_noise\_802dot11bgn

`APGraph.radio_noise_802dot11bgn` (*start=None, end=None*)

RRD graph URL for radio noise for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_noise_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=radio_noise'
```

#### 4.4.15 radio\_noise\_802dot11an

`APGraph.radio_noise_802dot11an` (*start=None, end=None*)

RRD graph URL for radio noise for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_noise_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=1&start=-3600s&type=radio_noise'
```

#### 4.4.16 radio\_noise\_802dot11ac

`APGraph.radio_noise_802dot11ac` (*start=None, end=None*)

RRD graph URL for radio noise for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_noise_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=1&start=-3600s&type=radio_noise'
```

#### 4.4.17 radio\_power\_802dot11bgn

APGraph.**radio\_power\_802dot11bgn** (*start=None, end=None*)

RRD graph URL for radio power for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_power_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=radio_power'
```

#### 4.4.18 radio\_power\_802dot11an

APGraph.**radio\_power\_802dot11an** (*start=None, end=None*)

RRD graph URL for radio power for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_power_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_power'
```

#### 4.4.19 radio\_power\_802dot11ac

APGraph.**radio\_power\_802dot11ac** (*start=None, end=None*)

RRD graph URL for radio power for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_power_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_power'
```

#### 4.4.20 radio\_errors\_802dot11bgn

`APGraph.radio_errors_802dot11bgn` (*start=None, end=None*)

RRD graph URL for radio errors for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_errors_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=radio_errors'
```

#### 4.4.21 radio\_errors\_802dot11an

`APGraph.radio_errors_802dot11an` (*start=None, end=None*)

RRD graph URL for radio errors for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_errors_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_errors'
```

#### 4.4.22 radio\_errors\_802dot11ac

`APGraph.radio_errors_802dot11ac` (*start=None, end=None*)

RRD graph URL for radio errors for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_errors_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_errors'
```

#### 4.4.23 radio\_goodput\_802dot11bgn

APGraph.**radio\_goodput\_802dot11bgn** (*start=None, end=None*)

RRD graph URL for radio goodput for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_goodput_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=radio_goodput'
```

#### 4.4.24 radio\_goodput\_802dot11an

APGraph.**radio\_goodput\_802dot11an** (*start=None, end=None*)

RRD graph URL for radio goodput for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_goodput_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_goodput'
```

#### 4.4.25 radio\_goodput\_802dot11ac

`APGraph.radio_goodput_802dot11ac` (*start=None, end=None*)

RRD graph URL for radio goodput for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.radio_goodput_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=radio_goodput'
```

#### 4.4.26 channel\_utilization\_802dot11bgn

`APGraph.channel_utilization_802dot11bgn` (*start=None, end=None*)

RRD graph URL for channel utilization for radio type IEEE802.11BGN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.channel_utilization_802dot11bgn(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=1&radio_interface=2&start=-3600s&type=channel_utilization'
```

#### 4.4.27 channel\_utilization\_802dot11an

`APGraph.channel_utilization_802dot11an` (*start=None, end=None*)

RRD graph URL for channel utilization for radio type IEEE802.11AN.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.channel_utilization_802dot11an(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=channel_utilization'
```

## 4.4.28 channel\_utilization\_802dot11ac

APGraph.**channel\_utilization\_802dot11ac** (*start=None, end=None*)

RRD graph URL for channel utilization for radio type IEEE802.11AC.

Args:

**start (int, optional)** Graph start time(seconds ago). Default is -7200.

**end (int, optional)** Graph end time(seconds ago). Default is None.

Returns:

**str** Graph URL string.

Usage:

```
>>> ap_graph.channel_utilization_802dot11ac(start=-3600)
'https://x.x.x.x/nf/rrd_graph?
  ap_uid=00%3A00%3A10%3A00%3A00%3A03&
  end=-0s&radio_index=2&radio_interface=2&start=-3600s&type=channel_utilization'
```

## 4.5 Report

### 4.5.1 init

## 4.6 Sample code

- Sample code: [Github](#)



---

## History

---

### 5.1 0.1.7 (2015-09-14)

- Changed some structures for stable into the APGraph methods.
- Changed documentation.

### 5.2 0.1.6 (2015-09-09)

- Added care of non existent graph url.
- Changed documentation.

### 5.3 0.1.5 (2015-09-07)

- Changed documentation.

### 5.4 0.1.4 (2015-09-07)

- Added latest report API.
- Changed documentation.

### 5.5 0.1.3 (2015-08-17)

- Added 802.11ac graph url.
- Changed documentation.

### 5.6 0.1.2 (2015-08-03)

- Changed documentation.

## 5.7 0.1.1 (2015-08-02)

- Changed documentation.

## 5.8 0.1.0 (2015-08-01)

- First release

---

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