

# AirOS

```
<?php

// airOS-getFile_HTTP() from Omniflux:
//
https://community.ubnt.com/t5/airMAX-AC/Login-to-web-interface-with-PHP/m-p/2291860#M29858

// an example of fetching status.cgi from an AF24 (and probably any other
UBNT radio)
// the output is a bunch of JSON with the current radio stats

// airOS_getFile_HTTP ($username, $password, $file, $address, $schema)

$out = airOS_getFile_HTTP ("root", "xxx", "status.cgi", "10.210.48.2",
"https"); // CPE mng
$out = airOS_getFile_HTTP ("galileo", "xxx", "status.cgi", "10.210.12.247",
"http"); // settore
$out = airOS_getFile_HTTP ("root", "xxx", "status.cgi",
"109.104.240.187:8008", "http"); // CPE
print $out;

function airOS_getFile_HTTP ($username, $password, $file, $address, $schema)
{
    $ch = curl_init();

    // Setup CURL
    curl_setopt ($ch, CURLOPT_SSL_VERIFYPEER, 0);
    curl_setopt ($ch, CURLOPT_SSL_VERIFYHOST, 0);
    curl_setopt ($ch, CURLOPT_RETURNTRANSFER, 1);
    curl_setopt ($ch, CURLOPT_COOKIEJAR, null);
    curl_setopt ($ch, CURLOPT_HTTPHEADER, Array ('Expect: '));

    // Login AirOS >= 8.5.0+ OR get cookie with session ID for AirOS <
8.5.0
    curl_setopt ($ch, CURLOPT_URL, "$schema://$address/api/auth");
    curl_setopt ($ch, CURLOPT_POST, 1);
    curl_setopt ($ch, CURLOPT_POSTFIELDS, Array ('username' =>
$username, 'password' => $password));
    curl_setopt ($ch, CURLOPT_HEADER, 1);
    $response = curl_exec ($ch);
    // uncomment to see raw response
    //print "resp: $response\n";
    curl_setopt ($ch, CURLOPT_HEADER, 0);

    // AirOS >= 8.5.0 request and return file
```

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    if (curl_getinfo ($ch, CURLINFO_HTTP_CODE) == 200)
    {
        // Get X-CSRF-ID value
        preg_match ('/X-CSRF-ID: .*/', substr ($response, 0,
curl_getinfo ($ch, CURLINFO_HEADER_SIZE)), $XCSRFID);

        curl_setopt ($ch, CURLOPT_URL, "$schema://$address/$file");
        curl_setopt ($ch, CURLOPT_POST, 0);
        $retfile = curl_exec ($ch);

        curl_setopt ($ch, CURLOPT_URL,
"$schema://$address/logout.cgi");
        curl_setopt ($ch, CURLOPT_HTTPHEADER, Array (trim
($XCSRFID[0]), 'X-AIROS-LUA: 1'));
        curl_setopt ($ch, CURLOPT_POST, 1);
        curl_setopt ($ch, CURLOPT_POSTFIELDS, Array ());
        curl_exec ($ch);
    }

    // Login failed, try AirOS < 8.5.0 login, request, and return file
    else
    {
        curl_setopt ($ch, CURLOPT_URL,
"$schema://$address/login.cgi");
        curl_setopt ($ch, CURLOPT_POST, 1);
        curl_setopt ($ch, CURLOPT_POSTFIELDS, Array ('username' =>
$username, 'password' => $password));
        curl_exec ($ch);

        curl_setopt ($ch, CURLOPT_URL, "$schema://$address/$file");
        curl_setopt ($ch, CURLOPT_POST, 0);
        $retfile = curl_exec ($ch);
    }

    curl_close ($ch);

    return $retfile;
}
?>
```

```
{
  "chain_names": [
    {
      "number": 1,
      "name": "Chain 0"
    },
    {
      "number": 2,
      "name": "Chain 1"
    }
  ],
}
```

```
"host": {
  "hostname": "cpe-188192-gal-lab",
  "uptime": 667685,
  "time": "2018-01-26 08:29:59",
  "timestamp": 828344250,
  "fwversion": "v8.5.0-cs.36727.180118.1402",
  "devmodel": "Rocket Prism 5AC Gen2",
  "netrole": "bridge",
  "loadavg": 0.129883,
  "totalram": 129982464,
  "freeram": 89100288,
  "temperature": 50,
  "cpuload": 39.603962
},
"genuine": "/images/genuine.png",
"services": {
  "dhcpc": false,
  "dhcpd": false,
  "dhcp6d_stateful": false,
  "pppoe": false,
  "airview": 2
},
"firewall": {
  "iptables": false,
  "ebtables": false,
  "ip6tables": false,
  "eb6tables": false
},
"portfw": false,
"wireless": {
  "ssid": "lessinianet.net",
  "mode": "sta-ptmp",
  "compat_11n": 0,
  "hide_essid": 0,
  "apmac": "80:2A:A8:A4:2F:9D",
  "frequency": 5655,
  "center1_freq": 5655,
  "dfs": 1,
  "distance": 14850,
  "security": "WPA2",
  "noise_f": -90,
  "txpower": 22,
  "aprepeater": false,
  "rstatus": 5,
  "chanbw": 20,
  "rx_chainmask": 3,
  "tx_chainmask": 3,
  "cac_state": 0,
  "rx_idx": 4,
  "rx_nss": 2,
  "tx_idx": 6,

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"tx_nss": 2,
"count": 1,
"polling": {
  "dcap": 57720,
  "ucap": 95680,
  "use": 2,
  "tx_use": 1,
  "rx_use": 1,
  "atpc_status": 0,
  "fixed_frame": false,
  "gps_sync": false
},
"sta": [
  {
    "mac": "80:2A:A8:A4:2F:9D",
    "lastip": "0.0.0.0",
    "signal": -66,
    "rssi": 30,
    "noisefloor": -90,
    "chainrssi": [
      28,
      26,
      0
    ],
    "tx_idx": 6,
    "rx_idx": 4,
    "tx_nss": 2,
    "rx_nss": 2,
    "tx_latency": 0,
    "distance": 14850,
    "tx_packets": 0,
    "tx_lretries": 0,
    "tx_sretries": 0,
    "uptime": 157916,
    "tx_ratedata": [
      3,
      0,
      0,
      176,
      14327,
      102196,
      156745,
      178340,
      0,
      0
    ],
    "stats": {
      "rx_bytes": 83701813,
      "rx_packets": 588950,
      "rx_pps": 11,
      "tx_bytes": 98347739,
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    "tx_packets": 292160,  
    "tx_pps": 0  
  },  
  "remote": {  
    "hostname": "santuario-Sud0vest",  
    "platform": "Rocket 5AC Prism",  
    "version": "XC.qca955x.v8.5.11.39842.190109.1449",  
    "uptime": 240246,  
    "time": "2019-01-12 10:33:00",  
    "cpuload": 7,  
    "temperature": 51,  
    "totalram": 129961984,  
    "freeram": 81661952,  
    "netrole": "bridge",  
    "mode": "ap-ptmp",  
    "compat_11n": 1,  
    "signal": -64,  
    "rssi": 32,  
    "noisefloor": -87,  
    "tx_power": 22,  
    "distance": 14850,  
    "rx_chainmask": 3,  
    "chainrssi": [  
      30,  
      28,  
      0  
    ],  
    "tx_ratedata": [  
      2,  
      5,  
      220,  
      3920,  
      294380,  
      0,  
      0,  
      0,  
      0,  
      0  
    ],  
    "tx_bytes": 139113407571,  
    "rx_bytes": 9806798900,  
    "ethlist": [  
      {  
        "ifname": "eth0",  
        "enabled": true,  
        "plugged": true,  
        "duplex": true,  
        "speed": 1000,  
        "snr": [  
          30,  
          30,  
          0  
        ]  
      }  
    ]  
  }  
}
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]
},
"interfaces": [
  {
    "ifname": "eth0",
    "hwaddr": "78:8A:20:AD:E4:4C",
    "enabled": true,
    "mtu": 1500,
    "status": {
      "plugged": true,
      "tx_bytes": 126448927,
      "rx_bytes": 32773228,
      "tx_errors": 0,
      "rx_errors": 0,
      "ipaddr": "0.0.0.0",
      "speed": 1000,
      "duplex": true,
      "snr": [
        29,
        28,
        29,
        29
      ],
    },
    "cable_len": 38
  },
  {
    "ifname": "ath0",
    "hwaddr": "78:8A:20:AC:E4:4C",
    "enabled": true,
    "mtu": 1500,
    "status": {
      "plugged": false,
      "tx_bytes": 394212716,
      "rx_bytes": 361312482,
      "tx_errors": 0,
      "rx_errors": 0,
      "ipaddr": "0.0.0.0",
      "speed": 0,
      "duplex": false
    }
  },
  {
    "ifname": "br0",
    "hwaddr": "78:8A:20:AC:E4:4C",
    "enabled": true,
    "mtu": 1500,
    "status": {
      "plugged": true,
      "tx_bytes": 312537683,
      "rx_bytes": 249947706,
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    "tx_errors": 0,  
    "rx_errors": 0,  
    "ipaddr": "10.210.48.2",  
    "speed": 0,  
    "duplex": false  
  }  
}  
],  
"provmode": {},  
"ntpclient": {},  
"unms": {  
  "status": 1,  
  "timestamp": "2018-01-26T08:29:57+0100"  
}  
}
```

risposta CPE

```
{ "host": {  
  "uptime": 5104088,  
  "time": "2017-02-16 18:53:02",  
  "fwversion": "v6.0",  
  "fwprefix": "XW",  
  "hostname": "cpe-240187",  
  "devmodel": "PowerBeam M5 300",  
  "netrole": "router",  
  "totalram": 63623168,  
  "freeram": 39596032,  
  "cputotal": 510331084,  
  "cpubusy": 3895687  
},  
"wireless": {  
  "mode": "sta",  
  "ssid": "lessinianet.net",  
  "hide_ssid": 0,  
  "apmac": "04:18:D6:EC:98:AC",  
  "countrycode": 380,  
  "channel": 40,  
  "frequency": "5200 MHz",  
  "dfs": "0",  
  "opmode": "11NAHT20",  
  "antenna": "300 - 22 dBi",  
  "chains": "2X2",  
  "signal": -70, "rssi": 26, "noise": -96,  
  "txpower": 22,  
  "ack": 37,  
  "distance": 1950,  
  "ccq": 991,  
  "txrate": "39", "rxrate": "117",  
  "security": "WPA2", "qos": "No QoS",  
  "rstatus": 5,  
}
```

```
"count": 1, "cac_nol": 0, "nol_chans": 0,
"polling": {
  "enabled": 0, "quality": 0, "capacity": 0, "priority": 0, "noack":
0,
  "airsync_mode": 0, "airsync_connections": 0,
  "airsync_down_util" : 0, "airsync_up_util" : 0,
  "airselect" : 0, "airselect_interval" : 0
},
"stats": {
  "rx_nwids": 0,
  "rx_crypts": 0,
  "rx_frags": 0,
  "tx_retries": 0,
  "missed_beacons": 0,
  "err_other": 0
},
"wds": 0,
"aprepeater": 0,
"chwidth": 20,
"chanbw": 20,
"cwmmode": 0,
"rx_chainmask": 3,
"tx_chainmask": 3,
"chainrssi" : [ 20, 25, 0 ],
"chainrssigmt" : [ 21, 25, 0 ],
"chainrssiext" : [ 20, 25, 0 ]
},
"airview": { "enabled": 0 },
"services": { "dhcpc": 0, "dhcpd": 1, "pppoe": 1 },
"firewall": { "iptables": 0, "ebtables" : 0, "ip6tables": 0, "eb6tables" :
0 },
"genuine": "/images/genuine.png",
"interfaces" : [
  {
    "ifname" : "lo",
    "hwaddr": "00:00:00:00:00:00",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 0, "duplex": 255 },
    "services" : { "dhcpc": false, "dhcpd": false, "pppoe": false }
  },
  {
    "ifname" : "eth0",
    "hwaddr": "80:2A:A8:6F:67:A9",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 100, "duplex": 1 },
    "services" : { "dhcpc": false, "dhcpd": false, "pppoe": false }
  },
  {
    "ifname" : "wifi0",
    "hwaddr": "80:2A:A8:6E:67:A9",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 0, "duplex": 255 },
```

```
    "services" : { "dhcpc": false, "dhcpd": false, "pppoe": false }
  },
  {
    "ifname" : "ath0",
    "hwaddr" : "80:2A:A8:6E:67:A9",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 0, "duplex": 255 },
    "services" : { "dhcpc": false, "dhcpd": false, "pppoe": true }
  },
  {
    "ifname" : "br0",
    "hwaddr" : "80:2A:A8:6F:67:A9",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 0, "duplex": 255 },
    "services" : { "dhcpc": false, "dhcpd": true, "pppoe": false }
  },
  {
    "ifname" : "ppp0",
    "hwaddr" : "00:00:00:00:00:00",
    "enabled" : true,
    "status" : { "plugged": 1, "speed": 0, "duplex": 255 },
    "services" : { "dhcpc": false, "dhcpd": false, "pppoe": false }
  }
]
}
```

From:  
<https://wiki.csgalileo.org/> - Galileo Labs

Permanent link:  
<https://wiki.csgalileo.org/tips/airos?rev=1552561494>

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