AirOS

SNMP

```
snmpwalk -c lessinianet.snmp -v 1 10.210.12.249 IF-MIB::ifDescr
IF-MIB::ifDescr.1 = STRING: lo
IF-MIB::ifDescr.2 = STRING: eth0
IF-MIB::ifDescr.3 = STRING: eth1
IF-MIB::ifDescr.4 = STRING: wifi0
IF-MIB::ifDescr.5 = STRING: ath0
IF-MIB::ifDescr.6 = STRING: eth0.10
IF-MIB::ifDescr.7 = STRING: br0
```

```
snmpget -c lessinianet.snmp -v 1 10.210.12.249 IF-MIB::ifPhysAddress.4
IF-MIB::ifPhysAddress.4 = STRING: 4:18:d6:ec:98:ac
```

Cercando dalla prima query i "wifi*" e sostituendo l'indice corrispondente (nell'esempio 4) nella seconda query si ottiene il mac. Ovviamente da fare usande le librerie SNMP PHP

http API

```php
<?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();
```

```php
        // 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

        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);
```

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

        curl_close ($ch);

        return $retfile;
}
?>
```

```json
{
  "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,
```

```json
  "wireless": {
    "essid": "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",
    "noisef": -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,
    "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,
          "tx_packets": 292160,
          "tx_pps": 0
        },
        "remote": {
          "hostname": "santuario-SudOvest",
          "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,
            30,
            30
          ],
          "cable_len": 14
        }
      ],
      "ipaddr": [
        "10.210.48.248",
        "169.254.47.157"
      ],
      "gps": {
        "lat": "45.545359",
        "lon": "10.878980",
        "fix": 1,
        "sats": 8,
        "dim": 3,
        "dop": "1.30",
        "alt": "341.6"
      },
      "oob": "false"
    },
    "airmax": {
      "actual_priority": 2,
      "beam": 0,
      "desired_priority": 2,
      "downlink_capacity": 57720,
      "uplink_capacity": 95680,
      "atpc_status": 0,
      "rx": {
```

```
            "usage": 1,
            "cinr": 26,
            "evm": [
              [
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    },
    "tx": {
      "usage": 1,
      "cinr": 26,
      "evm": [
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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,
        "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",
        "essid": "lessinianet.net",
        "hide_essid": 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, "noisef": -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 ],
        "chainrssimgmt" : [ 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:

Permanent link:

https://wiki.csgalileo.org/tips/airos

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