

Traffic Statistics	
Current Traffic:	
Traffic average for eth0	
rx	241.23 kb/s
tx	215.59 kb/s
	254 packets/s
	254 packets/s
Hourly Traffic:	
MB/s	KB/s
02	22.73
03	17.86
04	13.29
05	12.12
06	12.79
07	12.93
08	15.76
09	25.07
Daily Traffic:	
eth0	

AP traffic statistics.

Client Traffic Statistics						
Interface wlan0						
MAC Address	IP Address	Total (MB)	Total (Pkts)	Traffic (Kbps)	Traffic (pps)	Comment
*	192.168.8.1	0	0	0	0	test
*	192.168.8.4	1702	3096	7	14	test
*	192.168.8.10	857	991	0	0	swdm
Interface eth0 (LAN1)						
MAC Address	IP Address	Total (MB)	Total (Pkts)	Traffic (Kbps)	Traffic (pps)	Comment
*	192.168.8.1	0	0	0	0	test
*	192.168.8.4	0	0	0	0	test
*	192.168.8.10	0	0	0	0	swdm
Interface eth1 (LAN2)						
MAC Address	IP Address	Total (MB)	Total (Pkts)	Traffic (Kbps)	Traffic (pps)	Comment
*	192.168.8.1	0	0	0	0	test
*	192.168.8.4	3188	3977	190	19	test
*	192.168.8.10	96	533	0	0	swdm

Traffic statistics for each connected device.

Processor radiator – enhances the cooling of the device and prevents AP hang-up because of high temperature.

Gold guarantee – Broken hardware with APPro54G is immediately replaced by the operating one. We know that the clients need it in his network, not in service

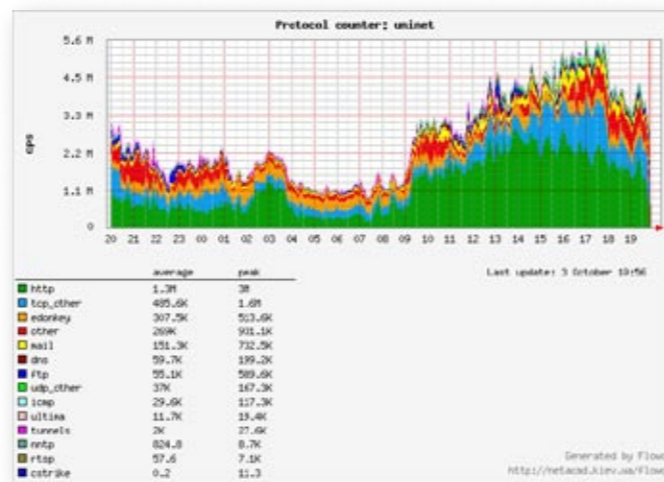
Cisco Netflow Statistics – export of statistics in Cisco Netflow format is a solution, which is not found in devices of this price level. This mechanism enables gathering of information about every transferred packet with source and destination addresses and ports. Advanced tools enable the subsequent analysis and archiving of this information. These tools provide data such as: statistics about users' operation in the network, used protocols and applications, traffic in ports and types of used services. You may supervise the statistics of the traffic live and through the daily and monthly reports.

List of connected clients with MAC and IP addresses – At any time you can check who is connected to the access point. Full information is accessible: MAC address, IP address, name of client, connection speed and the quantity of transferred data. The error statistics make it easy to determine the quality of each radio connection and detect problems.

List of active TCP/IP connections – it helps to browse in real time TCP or UDP sessions by the clients with such information as IP addresses, source and destination ports, transferred bytes. By this way you can diagnose the cause of excessive traffic in the network or virus attack.

Traffic statistics for each client – thanks to them you can supervise the operation of Traffic Manager. They present up-to-date transfer and the number of transferred packets in a second for every IP, MAC address or in the subnet entered in Traffic Manager.

Management by WWW, SSH or Telnet – APPro54G enables the management of the access point on the www level. There is an option for advanced users of access to diagnostic tools via Telnet and SSH – ping, tcpdump, ifconfig and traceroute.



Netflow statistics.

Features

:: APPro54G – basic assests:

- > Kernel Linux, version 2.4.18;
- > Busybox, version 1.0.0;
- > Iptables, version 1.2.9 (SNAT, DNAT, MAC, TTL, iplimit);
- > Iproute2 (HTB, WRR, PRIO, ESFQ);
- > Tools: traceroute, ping, arping, tcddump, nslookup;
- > Shell compatible with Bash (SSH/Telnet);
- > compiler gcc accessible.

:: APPro54G – full operation:

- > AP, APC, WDS, bridge and multipoint bridge;
- > Routing, WLAN/LAN/WAN in any configuration;
- > NAT and DHCP for WLAN or LAN;
- > Independent ports LAN in any configuration LAN/WAN;
- > MAC Address cloning;

:: APPro54G – wider possibilities:

- > Packets aggregate in bridge mode;
- > ACK parameter regulation;
- > Transmission power regulation, sensitivity regulation and channel number regulation;
- > Locking of client-client traffic (Intra BSS Traffic);
- > Selection of operation rates (Tx Operation Rate);
- > 64 entries in table of MAC authorized addresses;

:: APPro54G – full control:

- > QoS in bridge mode and router mode (full Linux options);
- > Band management for 64 of IP or MAC addresses;
- > Mask application in the course of rules' definition;
- > p2p traffic classification on the basis of packets' analysis;
- > Protocols: eMule, Direct Connect, KaZaA, Gnutella, BitTorrent;
- > Traffic precedence;
- > Separated band for: e-mail, www, P2P and others;
- > Traffic locking of addresses without assigned band;

:: APPro54G – enhanced reliability:

- > Hardware watchdog in additional module;
- > Watchdog restarting device in case of communications failure;
- > Temperature and voltage measurement;
- > Processor radiator;
- > Gold guarantee

APPro54G to access points based on RTL8186 chipset

Appro54G software is a specialized distribution of the Linux system for the most popular access point based on Realtek 8186 chipset. It is used by most of the IT producers, i.e. in the models: OvisLink WL-5460AP or Planet WAP-4035. APPro54G contains all tools necessary for configuration, administration and diagnostics of wireless computer networks, including internet access. Application of the Linux system ensures a far better functioning than other typical solutions. The hardware management is possible via www interface. Advanced users can also manage it from the level of console (Telnet or Ssh).

Thanks to our solution, you save on hardware purchase costs, such as managing server, router, firewall, switch, watchdog. You simplify the structure of your network and you enhance the reliability and safety of its operation. The best recommendation is a fact that our solution is used by thousands of networks in many countries. APPro operates in over 80 000 access points in those networks.



Planet WAP-4035/APPPro54G WAN/4xLAN/WLAN b/g, 54 mbps

online.pl APPro54G

STATUS

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Thank you for using WLAN Access Point with APPro54G.

Our APPro software incorporates a specialized Linux distribution, tailored to most widespread Realtek 8186 chipset-based access points, available from the majority of IT hardware distributors. The software incorporates tools necessary for AP's proper operation and configuring, it allows to log onto the AP via telnet, to access shell and utilize administration and diagnostic tools familiar to Linux users. As it integrates such tools as tcpdump, traceroute or arping, it allows for optimizing wireless network functioning along with faster diagnosing and eliminating a plethora of problems (virus attacks, P2P bandwidth overhead etc.). Furthermore, typical and extended access points' functionality such as bandwidth management, watchdog, port blocking etc. are available via WWW interface. Using our software you will cut on redundant hardware purchase costs (managing server, router, firewall, watchdog), streamline your network structure and enhance its quality, reliability and security. Network users will greatly appreciate these!

Some of the various things that this software supports are in a state of development where the functionality, stability, or the level of testing is not yet high enough for general use. So don't ask "Why doesn't this work?". Please be patient.

online.pl

Alfanet sp. z o.o. founded in 1996 and located in Wrocław, is a provider of Internet services and solutions based on Open Source software and Linux operating system. The company customer base includes over a thousand customers, being provided with a wide portfolio of hosting, registering and maintaining domains, designing Internet applications and websites, network security and Internet Wi-Fi access services.

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Demo APPro54G on the internet:
<http://wifi.online.pl/demo54g/>

:: APPro54G – enhanced safety:

- > Static ARP;
- > Firewall/NAT;
- > Full operation of firewall in bridge mode and in router mode;
- > Network access only for authorized MAC/IP pairs;
- > Traffic locking through selected ports or their range;
- > Network neighborhood filtering: RPC, (NETBIOS filtering);
- > Locking of link sharing (TTL);
- > Ports' forwarding;
- > PPPoE protocol servicing;
- > PPPoE client on WLAN or WAN interface;
- > Optional PPPoE server.

:: APPro54G – you know so you can do better:

- > Connected clients list with MAC and IP clients;
- > TCP/IP Active connections list;
- > Traffic statistics for each client;
- > Data export in Cisco Netflow format;
- > Management by WW, SSH or Telnet;
- > Defining of proprietary rules of QoS, NAT, firewall and routing;
- > Additional software installation option;
- > Script recording in flash memory.

:: APPro54G – you sleep peacefully:

- > 80 000 installations in thousands of networks all around the world;
- > Standard interface in successive versions;
- > regular and free update;

Active Wireless Client Table									
This table shows the MAC address, transmission, reception packet counters and encrypted status for each associated wireless client.									
MAC Address	IP Address	Mode	Tx Packet	Rx Packet	Tx Errors	Supp. Rates	Tx Rate		
00:e0:98:c5:9a:1c	---	Client	34020	22384	282	1,2,5,11	11		
00:4f:82:c2:07:82	192.168.100.250	Client	57990	86300	62	1,2,5,11	11		
00:50:50:81:81:01	172.20.255.6	Bridge	426912	360183	816	1,2,5,11	48		
00:4f:82:c2:1e:0a	172.20.255.7	Bridge	39030	34234	788	1,2,5,11	36		
00:4f:82:c2:05:c07	172.20.255.9	Client	9345105	11203296	10274	1,2,5,11	11		
00:e0:98:c5:98:00	172.20.255.252	Client	3443	328974	0	1,2,5,11	11		
00:e0:98:c5:98:1c	172.20.255.22	Client	622626	587751	595	1,2,5,11	54		
00:13:ce:2c:bc:87	172.20.255.18	Client	919854	61479	0	1,2,5,11	11		
00:0e:35:ee:88:d3	---	Client	3	1	0	1,2,5,11	48		
00:13:ce:ad:db:68	---	Client	2	31	0	1,2,5,11	11		
00:14:e4:4a:6c:a2	---	Client	2	3854	1	1,2,5,11	11		
00:4f:82:c2:07:82	172.20.255.145	Client	286984	387024	297	1,2,5,11	48		

List of connected devices with their MAC/IP adresses.

Description of selected functions of APPro54G

Packets' aggregate in bridge mode – one of the basic limits to the WIFI network efficiency is a maximum number of transferred packets in time unit. APPro54G puts small packets together into bigger packets of the greatest admissible size, which ensures a 20 % greater data transfer.

Transmission power regulation, sensitivity regulation and channel number regulation – The selection of sensitivity and power of the access point makes it possible to adjust parameters to individual needs. The decrease of sensitivity is helpful when the device is interfered with another device operating close by, on the same channel. By adjusting the power to the installed aerial you can get a maximum range and keep the admissible transmission power.

The option of locking client-client traffic (Intra BSS Traffic) – traffic between clients in networks providing internet imposes a considerable load on the accessible radio band and reduces the quality of other services. By locking the client to client traffic, APPro54G is a solution to long pings and packets' losing

Optional LAN/WAN/WLAN configuration for NAT and DHCP and independent Eth ports – Thanks to APPro54G, you will configure selected ports of your device as WAN or LAN, even if that were not provided for by the producer. The access point from APPro54G can operate as a router of full value and as DHCP server and it can share the connection both in wire and wireless technologies. This function in other devices is rare.

Connection Tracking Statistics						
Connection tracking table:						
SOURCE	DESTINATION	PROT	SENT (Bytes)			
62.111.156.30/2175	62.111.156.19/22	tcp	600rt			
172.20.0.104005	71.129.63.103/6881	tcp	4405			
172.20.0.102138	200.171.70.139/6881	tcp	2123			
172.20.0.104675	71.132.147.129/65535	tcp	4671			
62.111.156.20/20	62.111.156.17/2382	tcp	600rt			
172.20.0.111829	70.27.19.205/6881	tcp	1827			
172.20.0.113653	24.86.126.111/4999	tcp	1653			
172.20.0.104989	80.41.24.48/6881	tcp	4888			
172.20.0.112321	12.223.151.116/6900	tcp	1231			
172.20.0.111168	70.28.137.159/6881	tcp	1168			
172.20.0.111076	80.50.197.139/6882	tcp	1076			
172.20.0.113335	70.24.193.139/6881	tcp	3335			
212.29.80.231/25	62.111.156.25/25879	tcp	600rt			
172.20.0.115948	213.74.128.130/80	tcp	1948			
172.20.0.115185	81.171.53.141/8003	tcp	1185			
172.20.0.112992	80.226.228.49/10019	tcp	2992			
172.20.0.113040	83.29.166.21/28226	tcp	3040			
172.20.0.111634	192.168.3.17/1900	tcp	1634			
172.20.0.104934	70.28.134.149/26255	tcp	4934			

Active TCP/UDP sessions.

Wireless Advanced Settings	
These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your Access Point.	
Authentication Type:	<input type="radio"/> Open System <input type="radio"/> Shared Key <input checked="" type="radio"/> Auto
Fragment Threshold:	2346 (256 - 2348)
RIS Threshold:	2347 (0 - 2347)
Beacon Interval:	100 (20 - 1924 ms)
DTIM Period:	3 (1 - 256)
Receiver Sensitivity:	-82dBm
Tx Power:	22dBm / 150mW
Tx Rate:	11M
Tx Operation Rate:	<input checked="" type="checkbox"/> 1M <input checked="" type="checkbox"/> 2M <input checked="" type="checkbox"/> 5.5M <input checked="" type="checkbox"/> 11M <input checked="" type="checkbox"/> 6M <input checked="" type="checkbox"/> 9M <input checked="" type="checkbox"/> 12M <input checked="" type="checkbox"/> 18M <input checked="" type="checkbox"/> 24M <input checked="" type="checkbox"/> 36M <input checked="" type="checkbox"/> 48M <input checked="" type="checkbox"/> 54M
Tx Basic Rate:	<input checked="" type="checkbox"/> 1M <input checked="" type="checkbox"/> 2M <input checked="" type="checkbox"/> 5.5M <input checked="" type="checkbox"/> 11M <input type="checkbox"/> 6M <input type="checkbox"/> 9M <input type="checkbox"/> 12M <input type="checkbox"/> 18M <input type="checkbox"/> 24M <input type="checkbox"/> 36M <input type="checkbox"/> 48M <input type="checkbox"/> 54M
Preamble Type:	<input checked="" type="radio"/> Long Preamble <input type="radio"/> Short Preamble
Broadcast SSID:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
WAP:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Block BSS Traffic:	<input checked="" type="checkbox"/> (check to enable)
NETBIOS Filtering:	<input checked="" type="checkbox"/> (check to enable)
Busy channel sensing:	Energy Detection

Radio interface configuration.

Wireless Site Survey						
This page provides tool to scan the wireless network. If any Access Point or BSS is found, you could choose to connect it manually.						
SSID	BSSID	Channel	Type	Encrypt	RSSI/SG	Select
ONLINE.PL	00:4f:82:c2:1e:52	3b	AP	no	13062	<input type="checkbox"/>
ONLINE.PL	00:30:4f:28:1e:0e	5b	AP	no	4485	<input type="checkbox"/>
mylogby.net-rt	00:30:4f:28:1e:4b	5b	AP	yes	4167	<input type="checkbox"/>
public	00:30:4f:3e:0a:4e	9gb	AP	no	3893	<input type="checkbox"/>
my23	00:30:4f:3e:4d:4d	6gb	AP	no	3692	<input type="checkbox"/>
net1	00:60:c8:38:b7:a6	1b	AP	no	3206	<input type="checkbox"/>
netor	00:60:63:62:1a:66	3b	AP	yes	2582	<input type="checkbox"/>
twispot	00:11:96:61:18:e3	7b	AP	yes	2484	<input type="checkbox"/>
Kisatonet	00:40:14:9e:ea:1c	11b	AP	no	2381	<input type="checkbox"/>
artiles	00:14:8f:ef:31:81	11gb	AP	yes	2359	<input type="checkbox"/>
artiles	00:14:8f:ef:3e:0e	11gb	AP	yes	1512	<input type="checkbox"/>
WWW.ONLINE.PL	00:4f:82:c2:05:1b	7b	AP	no	1386	<input type="checkbox"/>
artiles	00:14:8f:c8:12:44	11gb	AP	yes	1240	<input type="checkbox"/>
Bodro_Wi	00:13:85:5b:5f:87	12gb	AP	yes	130	<input type="checkbox"/>

Site survey.

Advanced QoS	
Quality of Service (QoS) refers to the capability of a network to provide better service to selected network traffic. The primary goal of QoS is to provide priority including dedicated bandwidth, controlled jitter and latency (required by some real-time and interactive traffic), and improved loss characteristics. Also important is making sure that providing priority for one or more flows does not make other flows too slow.	
Advanced QoS:	<input checked="" type="checkbox"/> Enable <input type="checkbox"/> Disable
Essential:	1000 (kb/sec)
Uplink:	512 (kb/sec)
Queueing Discipline:	Priority Scheduler % of total bandwidth
JACKRABBIT Priority:	HIGH limit 20 %
Web Traffic Priority:	MEDIUM limit 50 %
Mail Traffic Priority:	HIGH limit 30 %
P2P Traffic Priority:	LOW limit 30 %
Other Traffic Priority:	LOW limit 60 %

QoS configuration.

Traffic manager	
Traffic Manager gives you control of your network traffic, increasing the efficiency of your network and reducing your overall bandwidth requirements.	
Traffic Manager:	<input checked="" type="checkbox"/> Enabled <input type="checkbox"/> Disabled
Unlisted Client Traffic:	<input type="checkbox"/> Deny <input checked="" type="checkbox"/> Forward
Client IP: (optional)	
Client MAC: (optional)	
Protocol:	Both
Download:	kbps
Uplink:	kbps
Comment:	

MAC Address	IP Address	Protocol	Download (kbps)	Uplink (kbps)	Comment	Select
*	212.244.222.126/28	TCP-UDP	1024	1024	network1	<input type="checkbox"/>
*	172.0.1	TCP-UDP	512	256	Qoava10	<input type="checkbox"/>
*	172.0.2	TCP-UDP	512	256	Qoava11	<input type="checkbox"/>
*	172.0.3	TCP-UDP	512	256	Qoava8	<input type="checkbox"/>
00:4f:82:c1:32:43	172.0.4	TCP-UDP	512	256	Qoava12	<input type="checkbox"/>
00:4f:82:04:80:11	172.0.5	TCP-UDP	512	256	Qoava13	<input type="checkbox"/>

Traffic Manager.

PPPoE Client on WLAN or WAN interface – thank to this special function, APPro54G becomes a dedicated client terminal and enables the connection of LAN subnet to the network where PPPoE protocol is used.

The band management for 64 clients and mask application in the course of rules' definition – When the band is not managed, individual users who intensively enjoy the network can make it hard for others to access the internet. Up to this time the most frequent solution was to place a server, which managed the band. APPro54G enables you to save server costs, because it manages it itself and it uses queuing HTB for a maximum of 64 users. The special function of Traffic Manager makes it easy to assign the uplink and downlink band, not only for selected IP or MAC addresses, but also to define proprietary separated subnets for many users with the common band. It means that the traffic regulation is closer to the client, which is more efficient and does not load the radio band (as it happens in the case of limiting traffic on the central server).

The separated band for e-mail, www and P2P and others – P2P traffic is a nightmare of the internet providers. APPro54G and QoS function define the part of the link, which can be used for www, mail and other protocols and what part will go to P2P. Thanks to fast management, there will always be a band for priority services. At the moments of overload the priority service replaces the service that is not so important. The advanced technique of packets' analysis recognises such P2P protocols as: eDonkey/ eMule/ Overnet, Direct Connet, KaZaA, Gnutella or BitTorrent.

The access only for authorized clients, locking of link sharing (TTL) – Illegal connection to the net or the sharing and providing connection for third parties is no longer a problem. APPro54G enables the access to the network only for authorized MAC/IP address pairs and makes it possible to apply ARP statistics tables. Additionally, the locking of traffic for addresses not entered in Traffic Manager and the modification of TTL value in packets entering the user's network, efficiently limits such unwelcome acts.

The locking of traffic to selected ports or their range – option of filtering both individual ports and selected ranges ensures safety in the network and guards the users against virus.

The filtering of network neighborhood: RPC and so on, NETBIOS Filtering – Windows systems send periodically packets to ports: 135-139, 427, 445, 1025, 1512. They are used to communicate and exchange the files in local networks, but they generate unwelcome traffic. The locking of the named ports saves the band for the internet access. Starting this option will lock RPC Windows services. Thanks to this, the hazard of virus attacks is reduced.

Firewall/NAT – If the mechanisms of packet filtering and of locking network neighborhood were not sufficiently efficient, APPro54G offers full functions of the Linux firewall (both as bridge and router). One can also use the iptables tool with additional extensions: REDIRECT, MASQUERADE, MARK, CONNMARK, connlimit, conntrack, ICMP, iprange, length, limit, MAC, MARK, multiport, TTL, IPP2P and mport.

Firewall and QoS accessible both in bridge mode and router mode – All advanced functions APPro54G connected with: port filtering, network neighborhood locking, firewall, clients' authorization according to MAC addresses and band managing and QoS – operate when the device works as transparent bridge and router. You can use these functions in every mode of operation: AP, APC, WDS, P2P and P2MP.

Not so many tasks thanks to two watchdogs – APPro54G uses two watchdogs. One is built in AP. The second is on the chip card. This makes the access point reliable. APPro54G will reset AP after the voltage drop, after EMC interference or other causes. You no longer have to climb the roof or the chimney to restart the access point. The watchdog automatically supervises the connection to the selected IP address using the ping order and restarts AP when the connection is inaccessible.