

## SETUP ROCKET M5 POINT TO POINT

Note : Topology (M5 AP WDS ---- distance ----- M5 STATION WDS)

ROCKET M5 AS AP WDS / 192.168.0.2

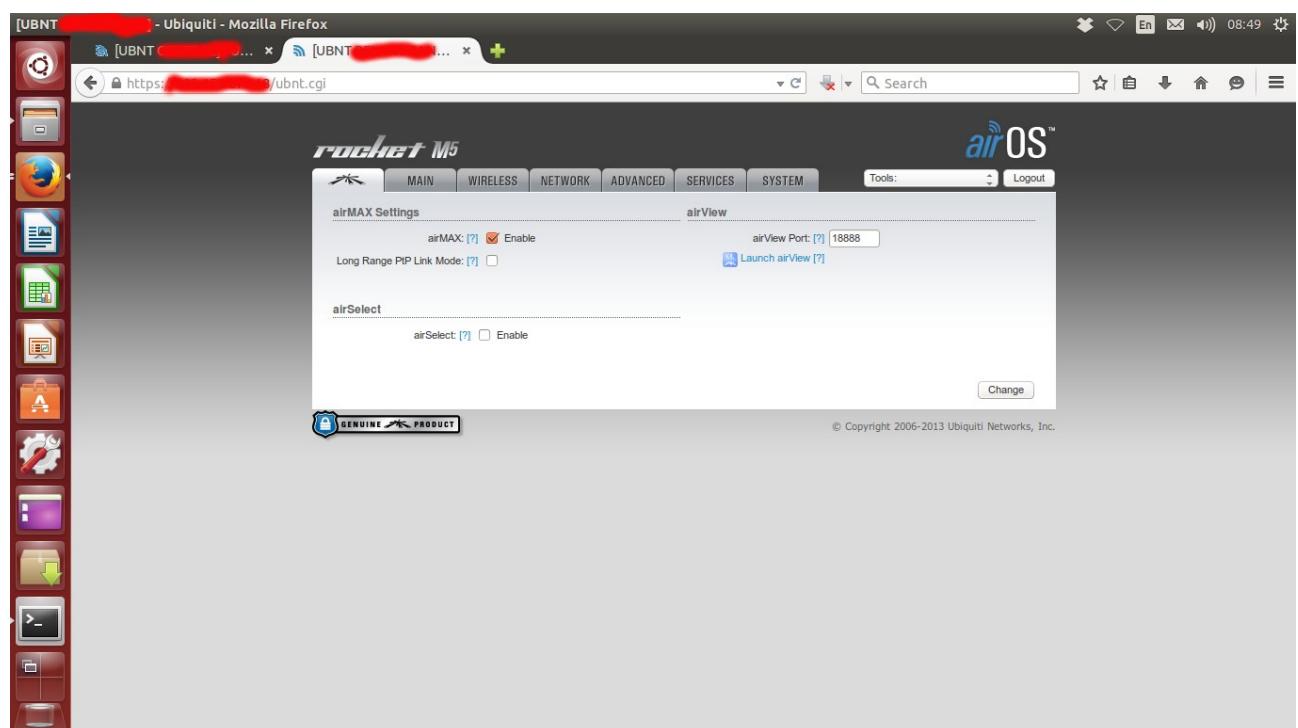
ROCKET M5 AS STATION WDS / 192.168.0.3

Gateway / 192.168.0.1

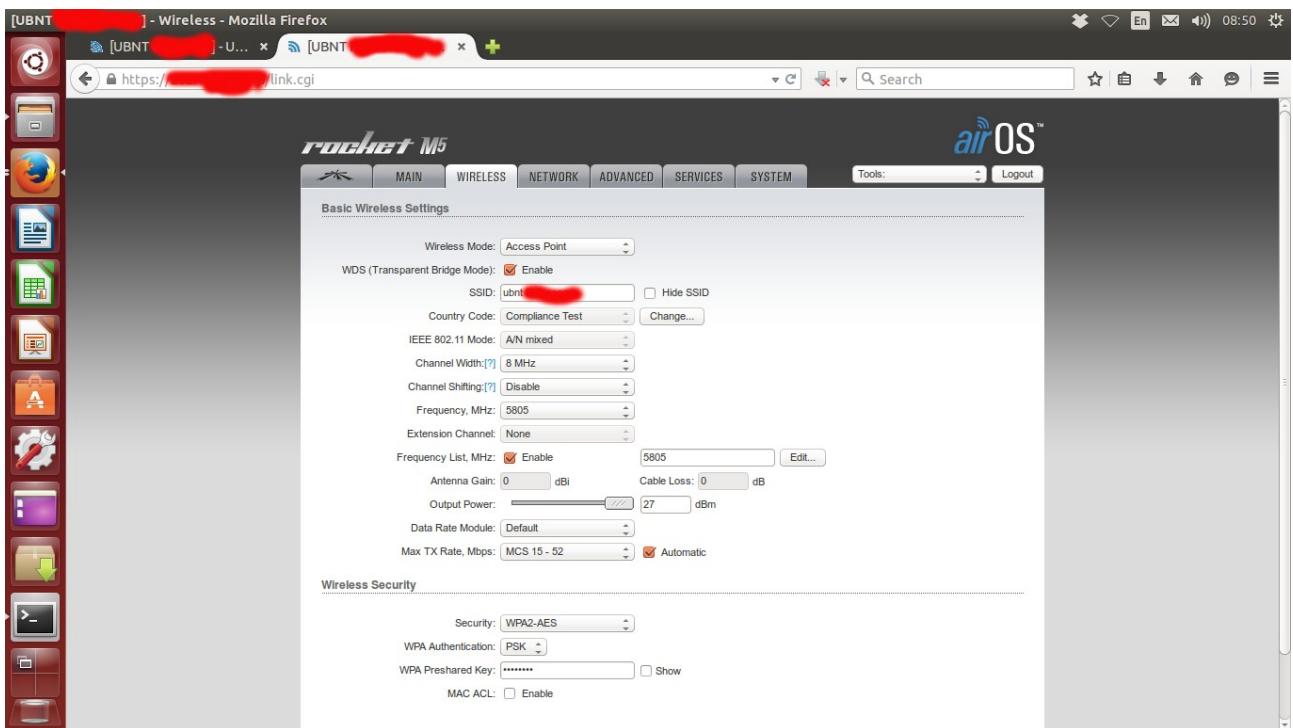
DNS / 8.8.4.4 / 8.8.8.8

### ROCKET M5 AS AP WDS

1. set enable air max.



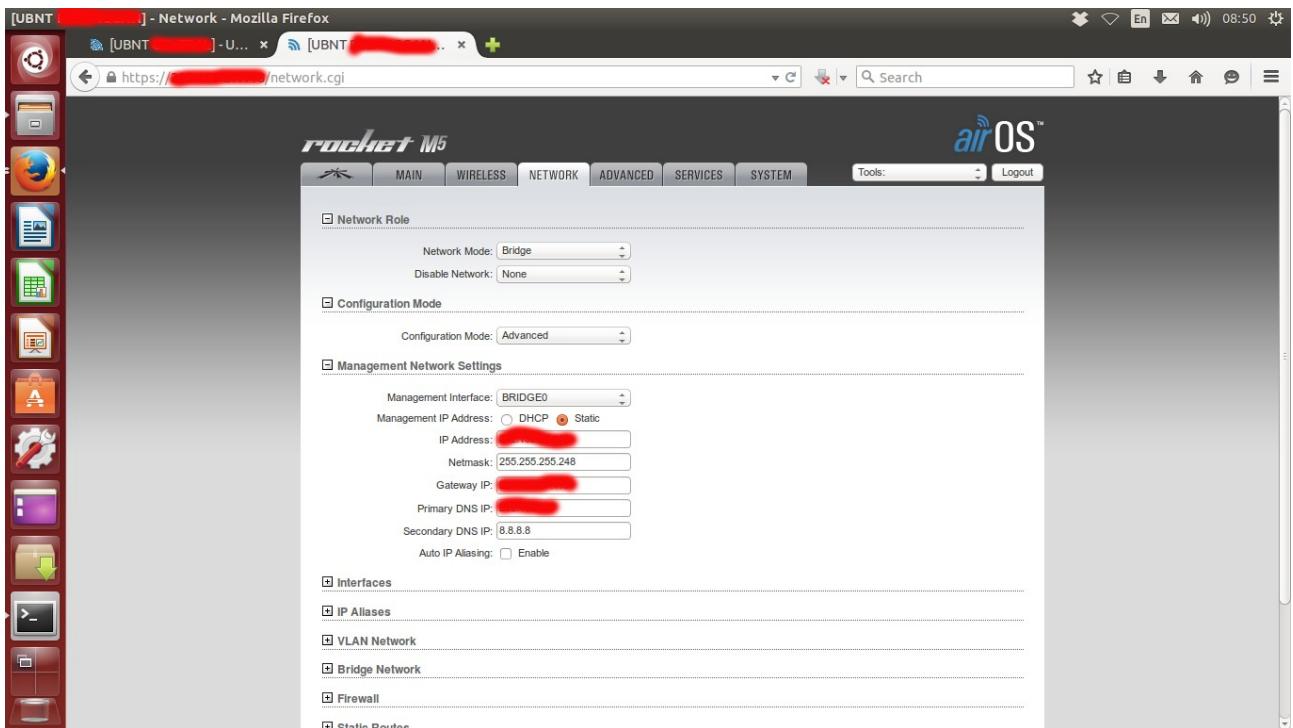
## 2. set wireless as AP mode, create SSID, key & etc.



The screenshot shows the 'Basic Wireless Settings' page of the airOS web interface. The 'WIRELESS' tab is selected. The 'Wireless Mode' dropdown is set to 'Access Point'. The 'WDS (Transparent Bridge Mode)' checkbox is checked. The 'SSID' field contains 'ubnt'. The 'Country Code' dropdown is set to 'Compliance Test'. The 'IEEE 802.11 Mode' dropdown is set to 'A/N mixed'. The 'Channel Width' dropdown is set to '8 MHz'. The 'Channel Shifting' dropdown is set to 'Disable'. The 'Frequency, MHz' dropdown is set to '5805'. The 'Extension Channel' dropdown is set to 'None'. The 'Frequency List, MHz' checkbox is checked and set to '5805'. The 'Antenna Gain' dropdown is set to '0 dBi'. The 'Cable Loss' dropdown is set to '0 dB'. The 'Output Power' slider is set to '27 dBm'. The 'Data Rate Module' dropdown is set to 'Default'. The 'Max TX Rate, Mbps' dropdown is set to 'MCS 15 - 52' and the 'Automatic' checkbox is checked. The 'Wireless Security' section shows 'Security' set to 'WPA2-AES' and 'WPA Authentication' set to 'PSK'. The 'WPA Preshared Key' field contains '\*\*\*\*\*' and the 'Show' checkbox is unchecked. The 'MAC ACL' checkbox is unchecked.

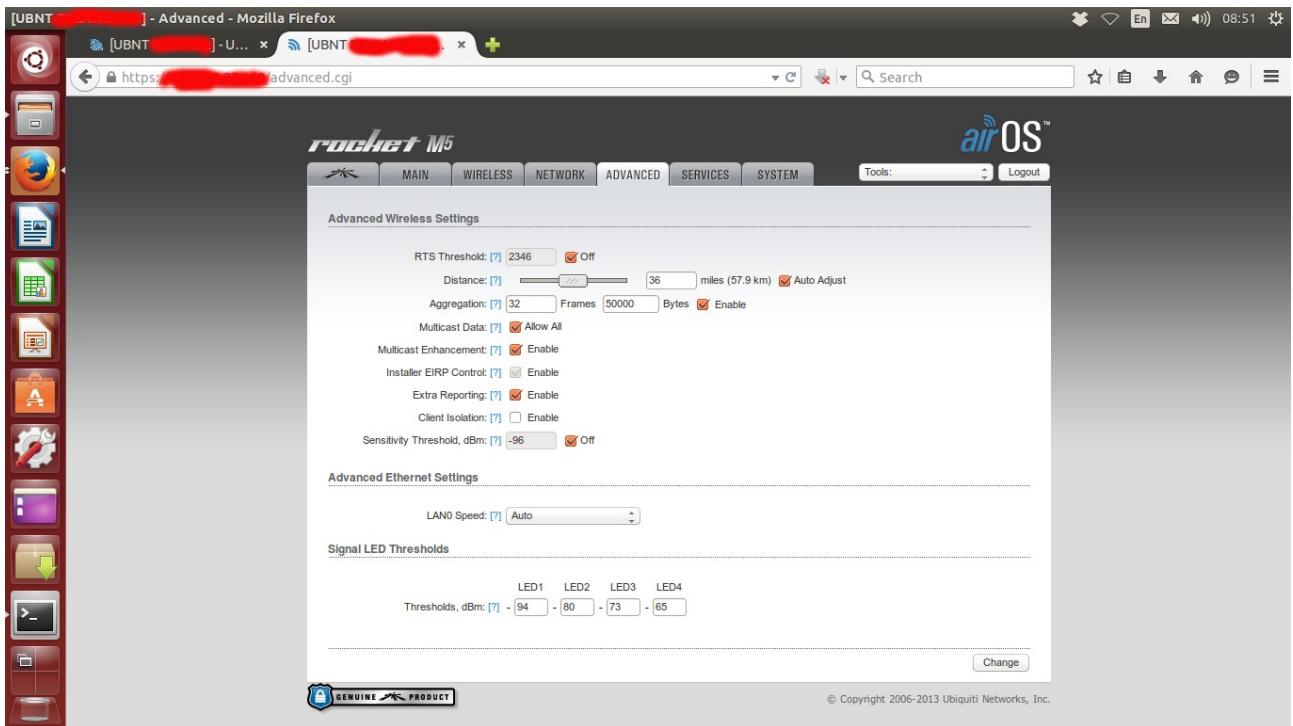
## 3. set network bridge mode, ip 192.168.0.2, netmask 255.255.255.248, gateway

192.168.0.1, DNS 8.8.4.4 / 8.8.8.8.



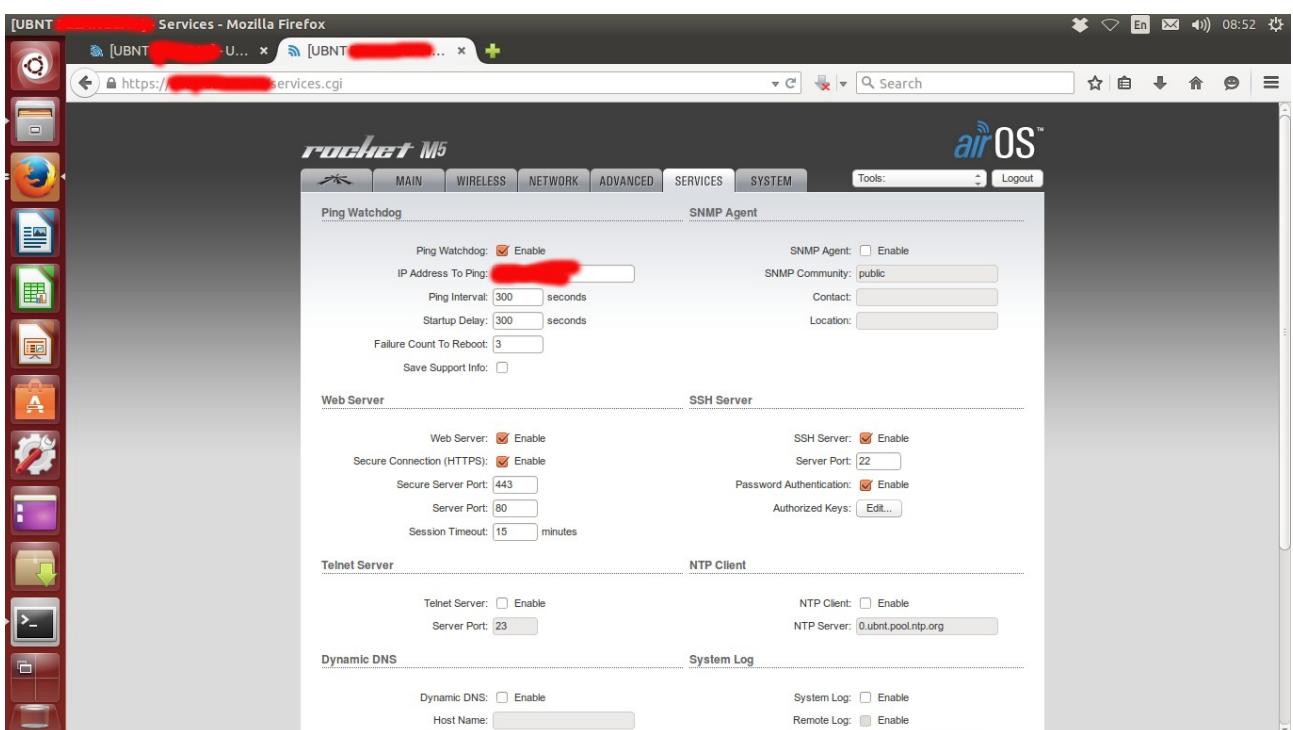
The screenshot shows the 'Network' configuration page of the airOS web interface. The 'NETWORK' tab is selected. The 'Network Mode' dropdown is set to 'Bridge'. The 'Management IP Address' dropdown is set to 'Static' and the IP address is '255.255.255.248'. The 'Netmask' dropdown is set to '255.255.255.248'. The 'Gateway IP' dropdown is set to '192.168.0.1'. The 'Primary DNS IP' dropdown is set to '8.8.8.8'. The 'Secondary DNS IP' dropdown is set to '8.8.4.4'. The 'Auto IP Aliasing' checkbox is unchecked. Below the main configuration, there are sections for 'Interfaces', 'IP Aliases', 'VLAN Network', 'Bridge Network', and 'Firewall'.

#### 4. set advance depend on your needs.



The screenshot shows the airOS web interface on a Rocket M5 device. The main menu on the left includes options like MAIN, WIRELESS, NETWORK, ADVANCED, SERVICES, and SYSTEM. The ADVANCED tab is selected. The page displays 'Advanced Wireless Settings' with various configuration options such as RTS Threshold, Distance, Aggregation, and Multicast Data. Below that is the 'Advanced Ethernet Settings' section, which includes LAN0 Speed and Signal LED Thresholds. The bottom of the page features a 'Genuine PRODUCT' badge and a copyright notice for Ubiquiti Networks, Inc. from 2006-2013.

#### 5. set services, enable ping watchdog to AP Station WDS ip 192.168.0.3, should you disable services that you don't need.



The screenshot shows the SERVICES page of the airOS web interface. It includes sections for Ping Watchdog, SNMP Agent, Web Server, SSH Server, Telnet Server, NTP Client, Dynamic DNS, and System Log. The Ping Watchdog section is active, with 'Ping Watchdog' checked and 'IP Address To Ping' set to 192.168.0.3. The Web Server section has 'Web Server' checked and 'Secure Connection (HTTPS)' enabled. The System Log section has 'System Log' checked. The bottom of the page features a 'Genuine PRODUCT' badge and a copyright notice for Ubiquiti Networks, Inc. from 2006-2013.

## 6. cek status.

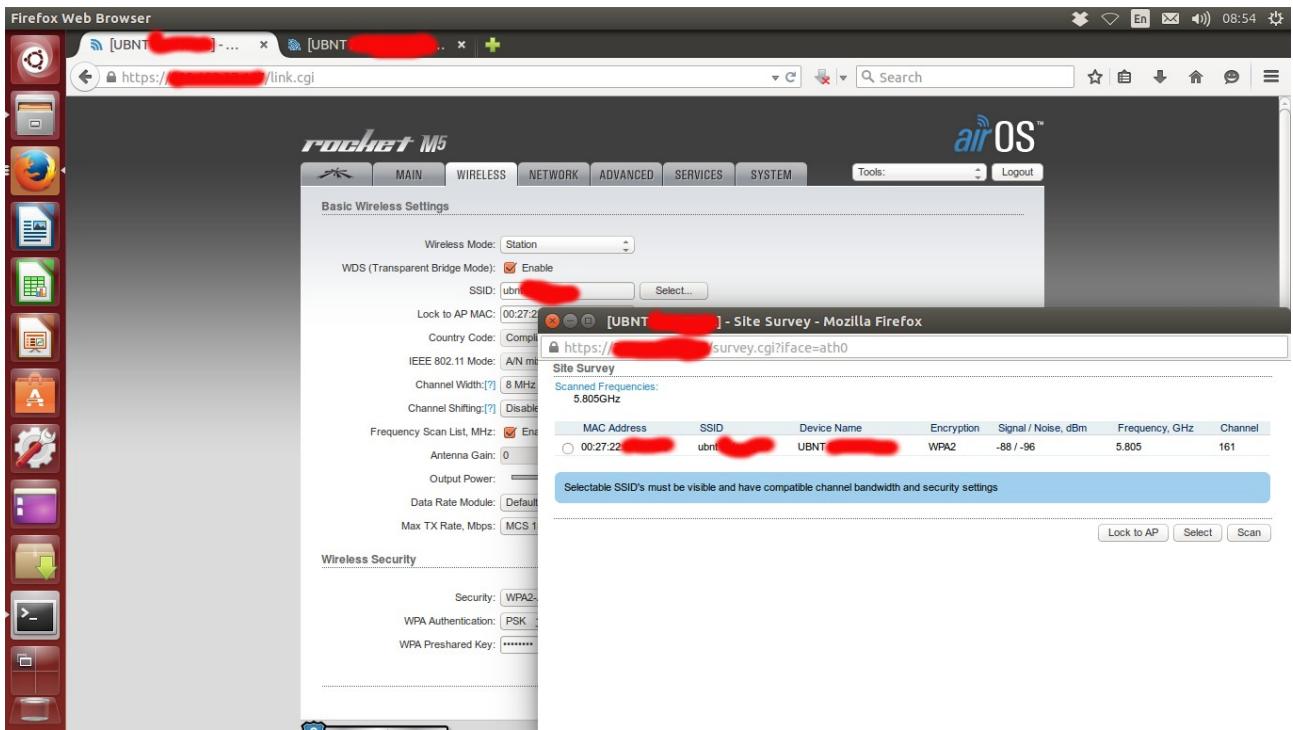
The screenshot shows the airOS web interface for a Rocket M5 device. The left sidebar contains icons for various management functions. The main window has tabs for MAIN, WIRELESS, NETWORK, ADVANCED, SERVICES, and SYSTEM. The 'Status' tab is selected, displaying device information such as Device Name (UBN [REDACTED]), Network Mode (Bridge), Wireless Mode (Access Point WDS), SSID (ubnt [REDACTED]), Security (WPA2-AES), Version (v5.5.6), Uptime (20 days 04:25:05), Date (2013-06-17 22:19:59), Channel/Frequency (161 / 5805 MHz), Channel Width (8 MHz), Distance (17.8 miles (28.7 km)), and TX/RX Chains (2X2). It also shows AP MAC (00:27:22 [REDACTED]), Connections (1), Noise Floor (-96 dBm), Transmit CQI (91.9 %), airMAX (Enabled), airMAX Quality (48 %), and airMAX Capacity (21 %). The 'Monitor' tab is also visible, showing throughput graphs for WLAN0 and LAN0. The WLAN0 graph shows RX: 863kbps and TX: 49.8kbps. The LAN0 graph shows RX: 39.7kbps and TX: 857kbps.

## ROCKET M5 AS STATION WDS

### 7. set air max.

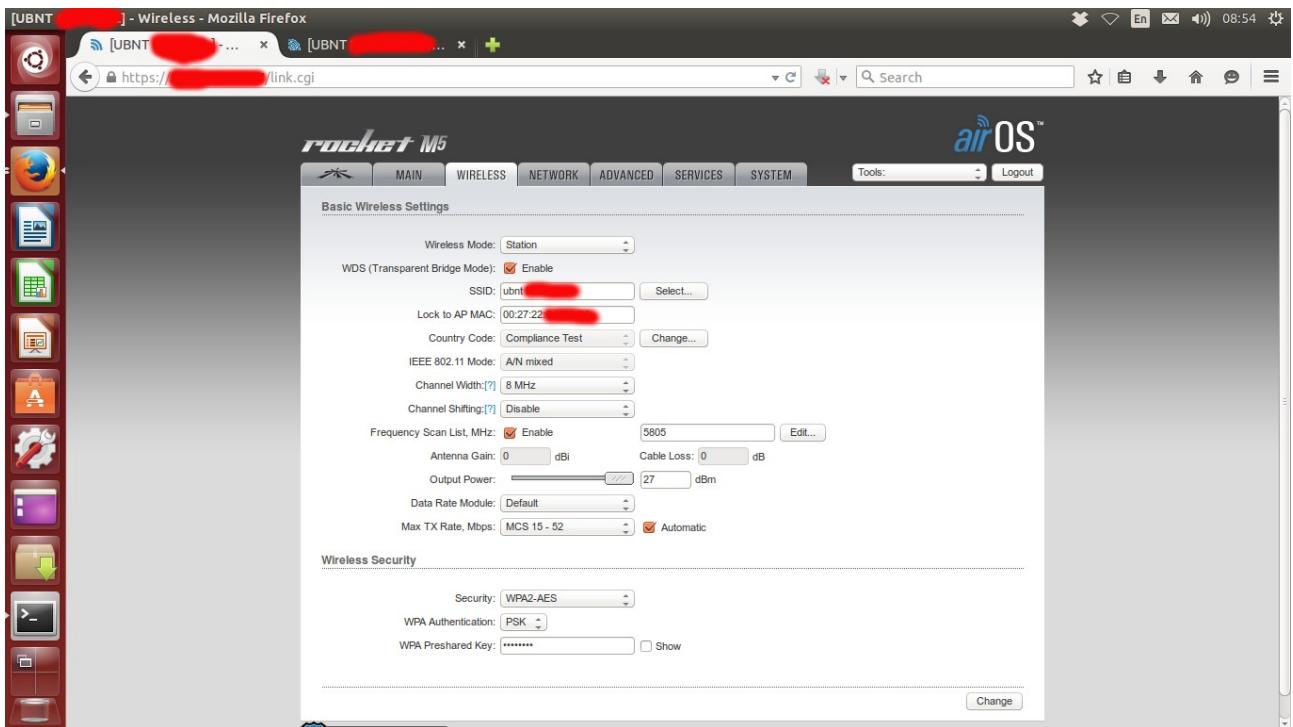
The screenshot shows the airOS web interface for a Rocket M5 device. The left sidebar contains icons for various management functions. The main window has tabs for MAIN, WIRELESS, NETWORK, ADVANCED, SERVICES, and SYSTEM. The 'airMAX Settings' tab is selected, showing the airMAX Priority (High) and airView Port (18888). There is a 'Launch airView' button and a 'Change' button. A 'Genuine PRODUCT' badge is visible at the bottom. The page footer includes the text '© Copyright 2006-2013 Ubiquiti Networks, Inc.'

8. set wireless as station mode & select site survey to rocket M5 as Ap mode.



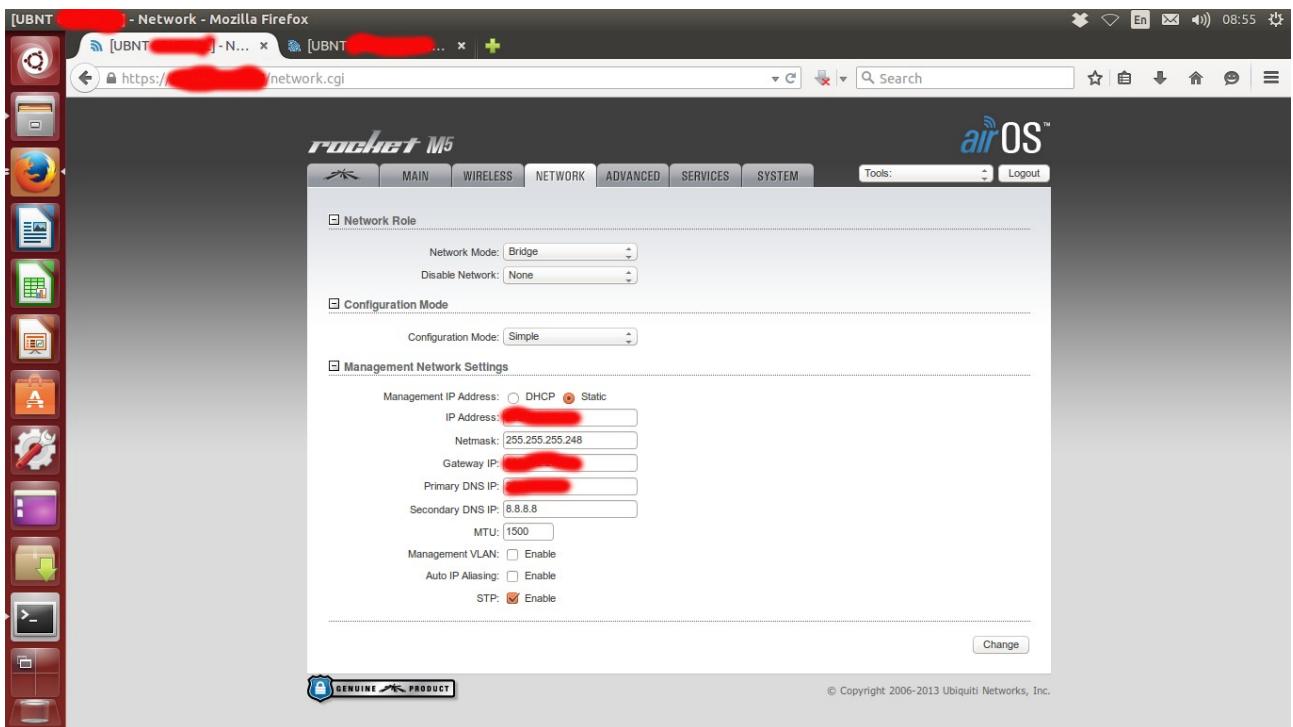
The screenshot shows the airOS web interface on a Firefox browser. The main window displays the 'Basic Wireless Settings' for a 'rocket M5' device. The 'Wireless Mode' is set to 'Station'. The 'SSID' field contains 'ubnt'. The 'Lock to AP MAC' field shows '00:27:22'. The 'Country Code' is set to 'Compliance Test'. The 'IEEE 802.11 Mode' is 'A/N mixed'. The 'Channel Width' is '8 MHz'. The 'Channel Shifting' is 'Disable'. The 'Frequency Scan List, MHz' is set to 'Enable' with a value of '5805'. The 'Antenna Gain' is '0 dB'. The 'Output Power' is '27 dBm'. The 'Data Rate Module' is 'Default'. The 'Max TX Rate, Mbps' is 'MCS 15 - 52'. The 'Wireless Security' section shows 'Security: WPA2-AES', 'WPA Authentication: PSK', and 'WPA Preshared Key: .....'. A secondary window titled '[UBNT] - Site Survey - Mozilla Firefox' is open, showing a table of scanned frequencies. The table includes columns for MAC Address, SSID, Device Name, Encryption, Signal / Noise, dBm, Frequency, GHz, and Channel. One row is visible: MAC Address '00:27:22', SSID 'ubnt', Device Name 'UBNT', Encryption 'WPA2', Signal / Noise, dBm '-88/-96', Frequency, GHz '5.805', and Channel '161'. A message at the bottom of the survey window states 'Selectable SSID's must be visible and have compatible channel bandwidth and security settings'. The browser toolbar at the top shows the URL 'https://[UBNT]/link.cgi?iface=ath0'.

9. set key and ect (key to connect M5 as ap mode).



The screenshot shows the airOS web interface on a Firefox browser. The main window displays the 'Basic Wireless Settings' for a 'rocket M5' device. The 'Wireless Mode' is set to 'Station'. The 'SSID' field contains 'ubnt'. The 'Lock to AP MAC' field shows '00:27:22'. The 'Country Code' is set to 'Compliance Test'. The 'IEEE 802.11 Mode' is 'A/N mixed'. The 'Channel Width' is '8 MHz'. The 'Channel Shifting' is 'Disable'. The 'Frequency Scan List, MHz' is set to 'Enable' with a value of '5805'. The 'Antenna Gain' is '0 dB'. The 'Output Power' is '27 dBm'. The 'Data Rate Module' is 'Default'. The 'Max TX Rate, Mbps' is 'MCS 15 - 52'. The 'Wireless Security' section shows 'Security: WPA2-AES', 'WPA Authentication: PSK', and 'WPA Preshared Key: .....'. The 'Change' button is visible at the bottom right of the security section. The browser toolbar at the top shows the URL 'https://[UBNT]/link.cgi?iface=ath0'.

10. set network bridge, set ip 192.168.0.3, netmask 255.255.255.248, gw 192.168.0.1, DNS 8.8.4.4 / 8.8.8.8.



Network Role

Network Mode: Bridge

Disable Network: None

Configuration Mode: Simple

Management Network Settings

Management IP Address:  DHCP  Static

IP Address: [REDACTED]

Netmask: 255.255.255.248

Gateway IP: [REDACTED]

Primary DNS IP: [REDACTED]

Secondary DNS IP: 8.8.8.8

MTU: 1500

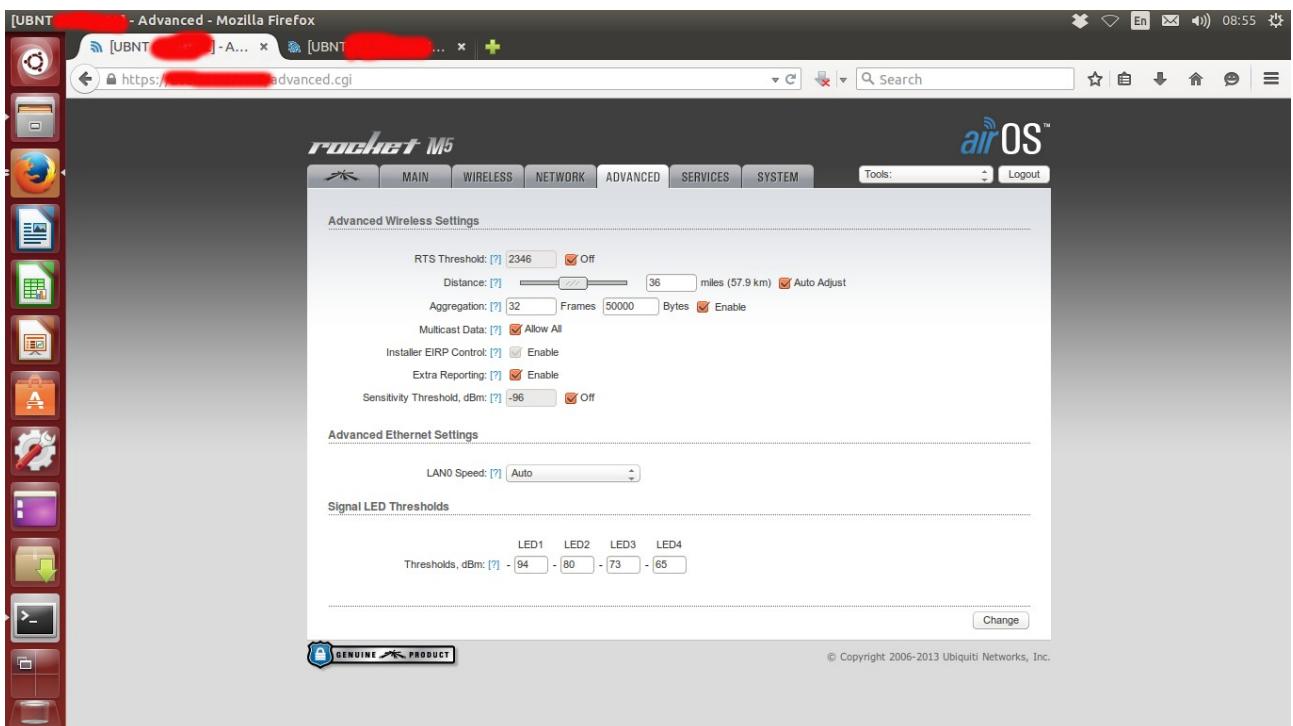
Management VLAN:  Enable

Auto IP Aliasing:  Enable

STP:  Enable

Change

11. set advance.



Advanced Wireless Settings

RTS Threshold: 2346  Off

Distance: 36 miles (57.9 km)  Auto Adjust

Aggregation: 32 Frames  Bytes  Enable

Multicast Data:  Allow All

Installer EIRP Control:  Enable

Extra Reporting:  Enable

Sensitivity Threshold, dBm: -96  Off

Advanced Ethernet Settings

LAN0 Speed: Auto

Signal LED Thresholds

LED1	LED2	LED3	LED4
94	80	73	65

Change

## 12. set services, ping watchdog to ip 192.168.0.2 M5 ap mode.

Services - Mozilla Firefox

rocket M5

Ping Watchdog

Ping Watchdog:  Enable

IP Address To Ping: 192.168.0.2

Ping Interval: 300 seconds

Startup Delay: 300 seconds

Failure Count To Reboot: 3

Save Support Info:

SNMP Agent

SNMP Agent:  Enable

SNMP Community: public

Contact:

Location:

Web Server

Web Server:  Enable

Secure Connection (HTTPS):  Enable

Secure Server Port: 443

Server Port: 80

Session Timeout: 15 minutes

SSH Server

SSH Server:  Enable

Server Port: 22

Password Authentication:  Enable

Authorized Keys: [Edit...](#)

Telnet Server

Telnet Server:  Enable

Server Port: 23

NTP Client

NTP Client:  Enable

NTP Server: 0.ubnt.pool.ntp.org

Dynamic DNS

Dynamic DNS:  Enable

Host Name:

System Log

System Log:  Enable

Remote Log:  Enable

Logout

## 13. cek status.

Main - Mozilla Firefox

rocket M5

Status

Device Name: UBNT

Network Mode: Bridge

Wireless Mode: Station WDS

SSID: ubnt

Security: WPA2-AES

Version: v5.5.6

Uptime: 13 days 17:23:44

Date: 2015-07-31 01:56:46

Channel/Frequency: 161 / 5805 MHz

Channel Width: 8 MHz

Distance: 17.6 miles (28.4 km)

TXRX Chains: 2X2

WLAN0 MAC: 00:27:22:00:00:00

LAN0 MAC: 00:27:22:00:00:00

LAN0 100Mbps-Full

AP MAC: 00:27:22:00:00:00

Signal Strength: -81 dBm

Chain 0 / Chain 1: -82 / -83 dBm

Noise Floor: -96 dBm

Transmit CQI: 98.5 %

TX/RX Rate: 10.4 Mbps / 10.4 Mbps

airMAX: Enabled

airMAX Priority: High

airMAX Quality: 49 %

airMAX Capacity: 18 %

Monitor

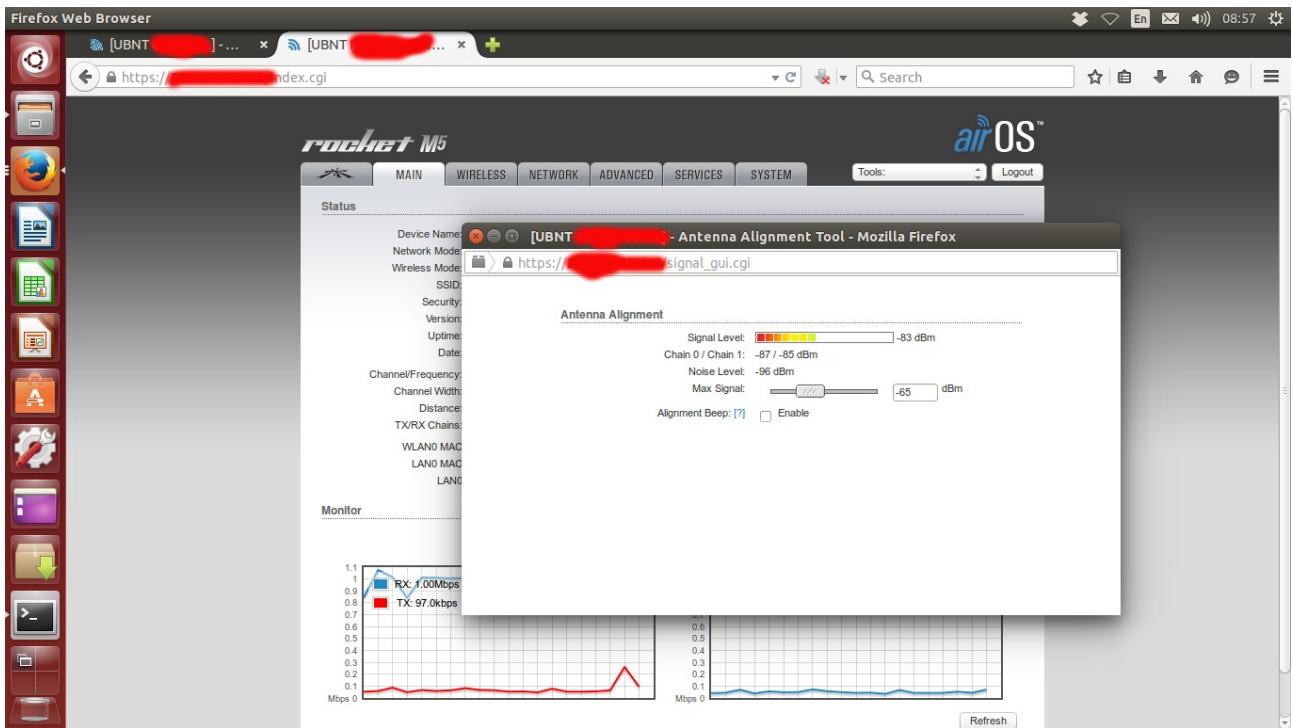
Throughput | AP Information | Interfaces | ARP Table | Bridge Table | Routes | Log

WLAN0

LAN0

Refresh

## 14. fix it if signal poor.



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