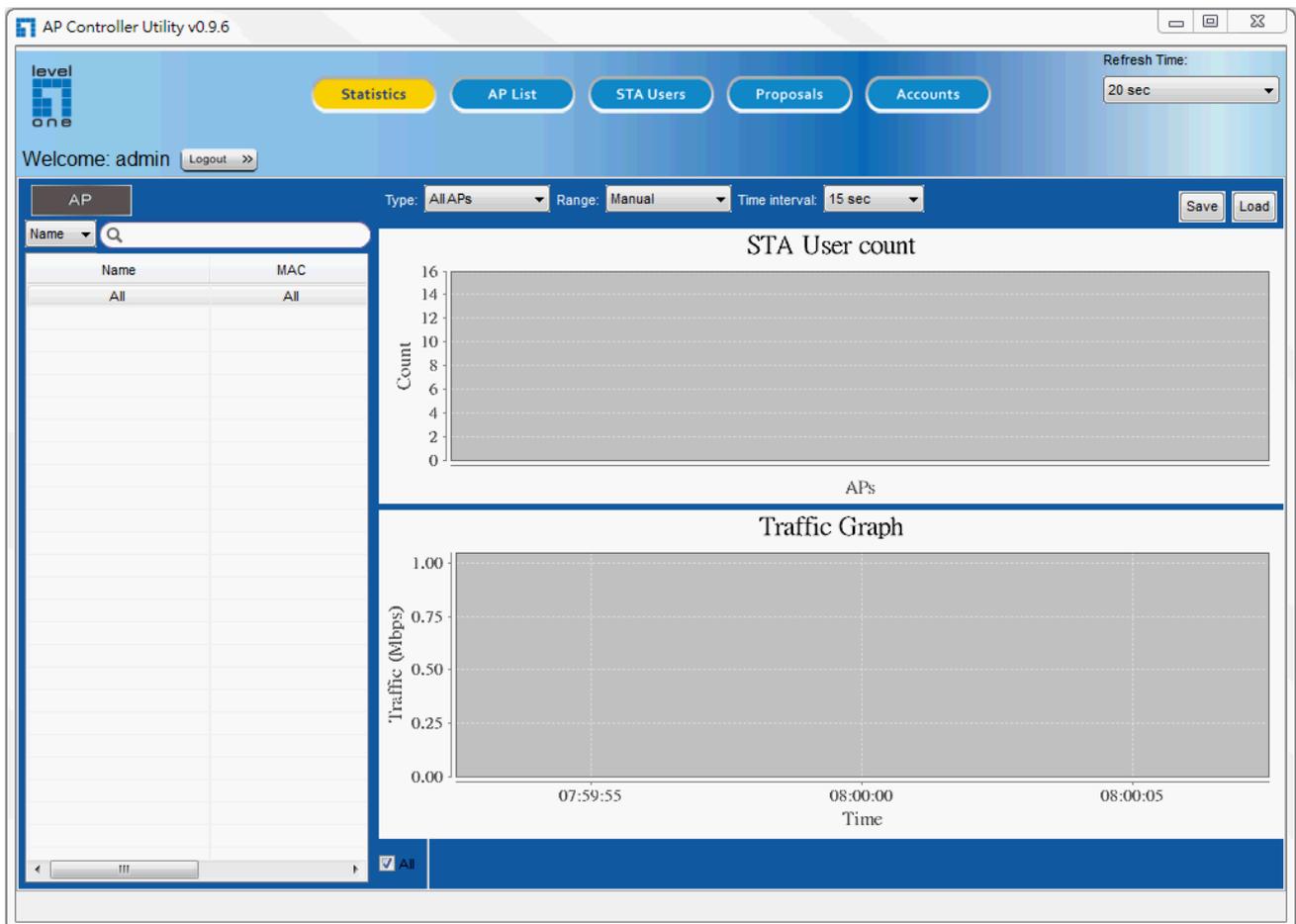




# AP Controller Utility

## Quick Installation Guide



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## Chapter 1 Introduction

LevelOne AP Controller utility is a PC software of network management system for centralized management of LevelOne AP devices in various applications. It allows administrator to deploy AP mesh quickly and easily across IP network, and configure all trusted APs based on pre-defined configuration profiles individually or simultaneously. The system supports a smart discovery of trusted APs via UPnP and CAPWAP protocols and a quick AP searching based on AP's name, MAC address or IP address from the trusted AP list. It also monitors online status of managed APs and real-time network traffic for each AP, each virtual AP and each STA client graphically. To collect all categorized traps in the control center from trusted APs and make several statistics diagrams, administrator can have an easy analysis based on these diagrams and take adequate and instant reactions to the events. Full control functions to all trusted APs include reboot, reset, FW upgrade and backup/restore settings. And further, AP Load Balance function leverages the loading of all AP members in the AP mesh to get best communication performance in the whole network. Besides, an optional function of remote AP management also can be activated via a pre-established VPN tunnel.

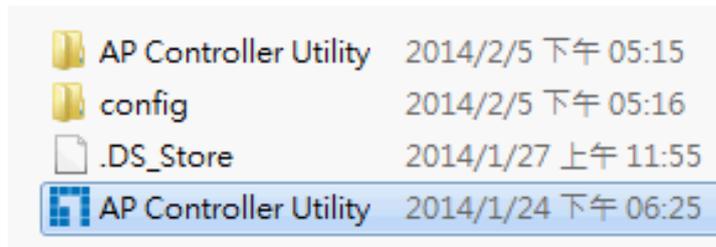
### 1.1 SYSTEM REQUIREMENTS

AP Controller Configuration Requirements	<b>Computer with the following:</b> <ul style="list-style-type: none"><li>• <b>Windows® 7 and XP with Service Pack 2</b></li></ul>
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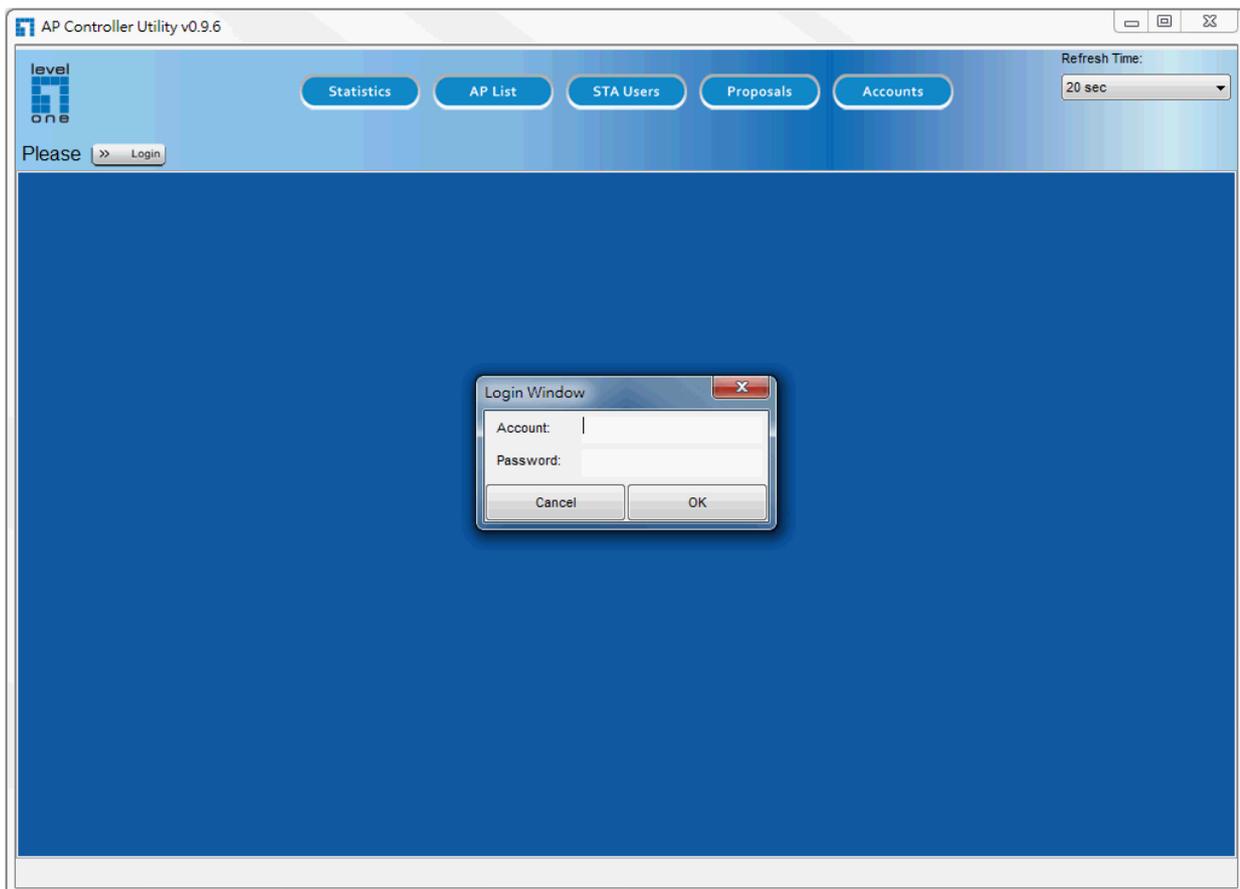
## Chapter 2 Getting Started

### Easy Setup

Decompress this zip file as follows:



Click “ AP Controller ” to execute :



**Input default account and password to start**

Default account and password is admin and admin.

※Account “admin” can’t be removed ,Please modify password when you login first time.

## AP Controller discover Trusted APs

AP Controller will discover first and List all APs in Left window.

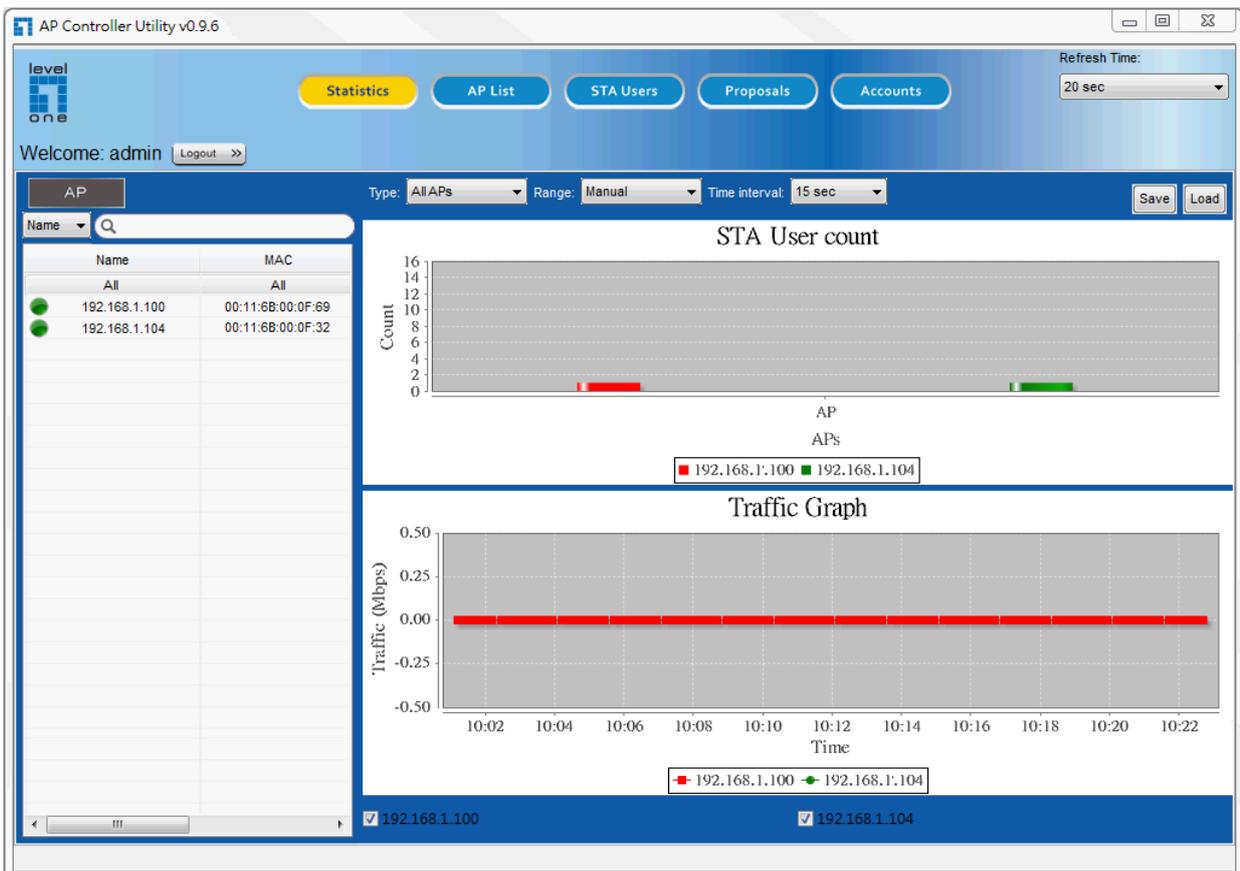
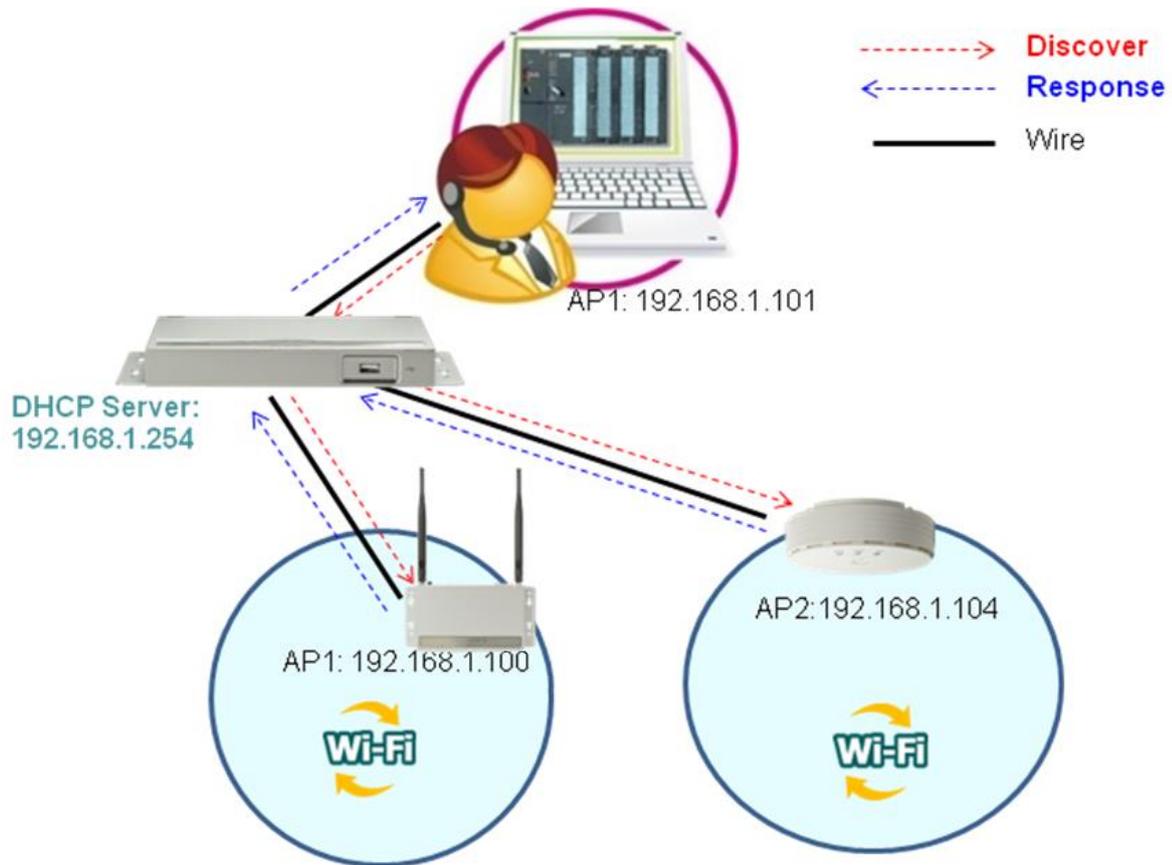
User can search key word to find related AP in lists.



※Green means AP is Online, Gray means AP is Offline or doesn't detect in a short period.

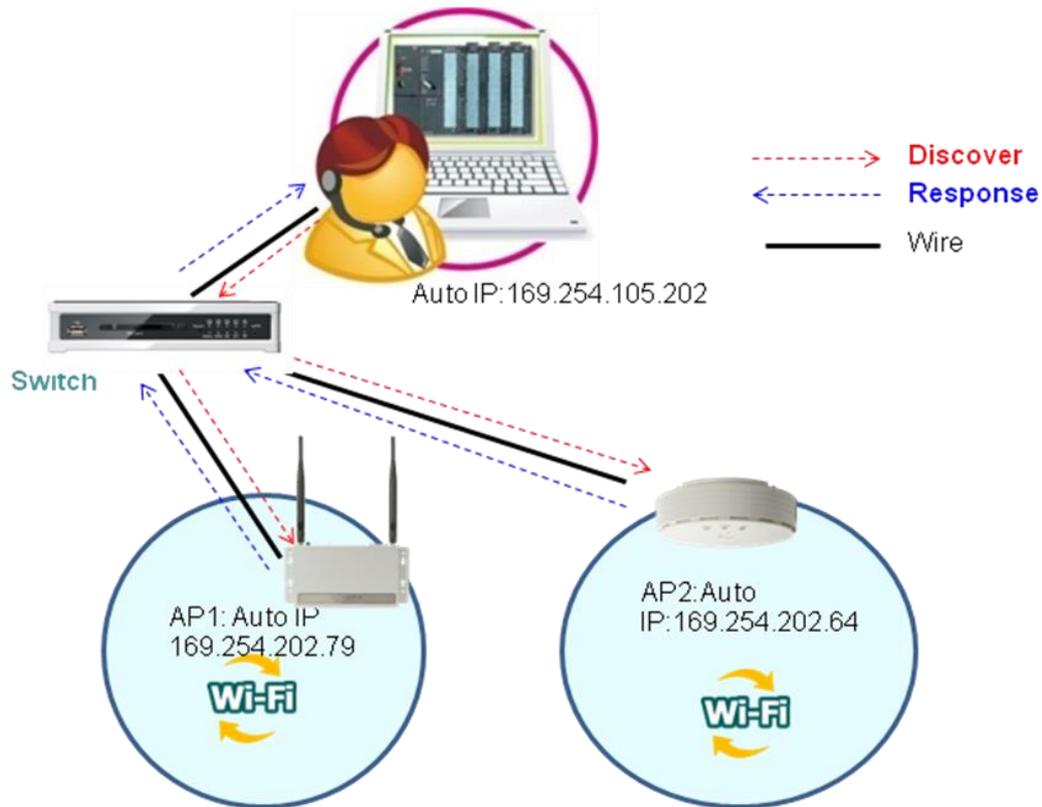
## AP Controller can discover and list Trusted APs in below environments

1.All Devices are Assigned by DHCP server:

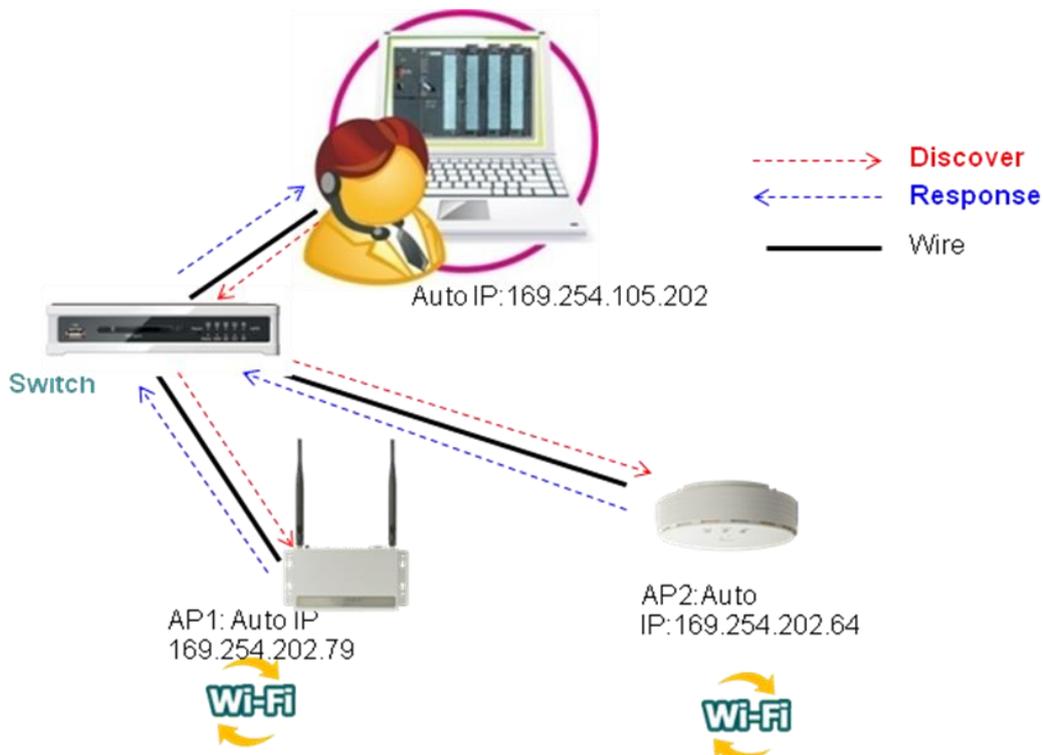


2. When AP Controller sets “Static IP”, 192.168.1.123

Discovered APs will be Static IP:



3. When AP Controller sets "Auto IP" :169.254.x.x subnet.  
 Discovered APs also be set Auto IP:



AP Controller Utility v0.9.6

level one

Statistics AP List STA Users Proposals Accounts

Welcome: admin Logout >>

Online: 2  
Offline: 0

Refresh Time: 20 sec

Discover

Name	MAC
All	All
169.254.105.79	00:11:6B:00:0F:32
169.254.105.64	00:11:6B:00:0F:D0

Index	Download Traffic	Upload Traffic	Online Users	CPU Usage	Memory Usage	Work Time
1	0Mbps	0Mbps	2	9%	50%	00:6:28

When admin finishes the setting to reboot APs, there are 2 situations:

- 1.If AP Controller still uses Auto IP,AP will use Auto IP so that AP Controller can configure APs.
- 2.If AP or dhcp server is not existed in current Network, AP will use default IP(192.168.1.1).

The below is Web GUI of AP.

IPv4 System Status	
Item	LAN Status
Remaining Lease Time	-
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Gateway	0.0.0.0
Domain Name Server	0.0.0.0 , 0.0.0.0

※Please change Name when discover Trusted AP in the first time.

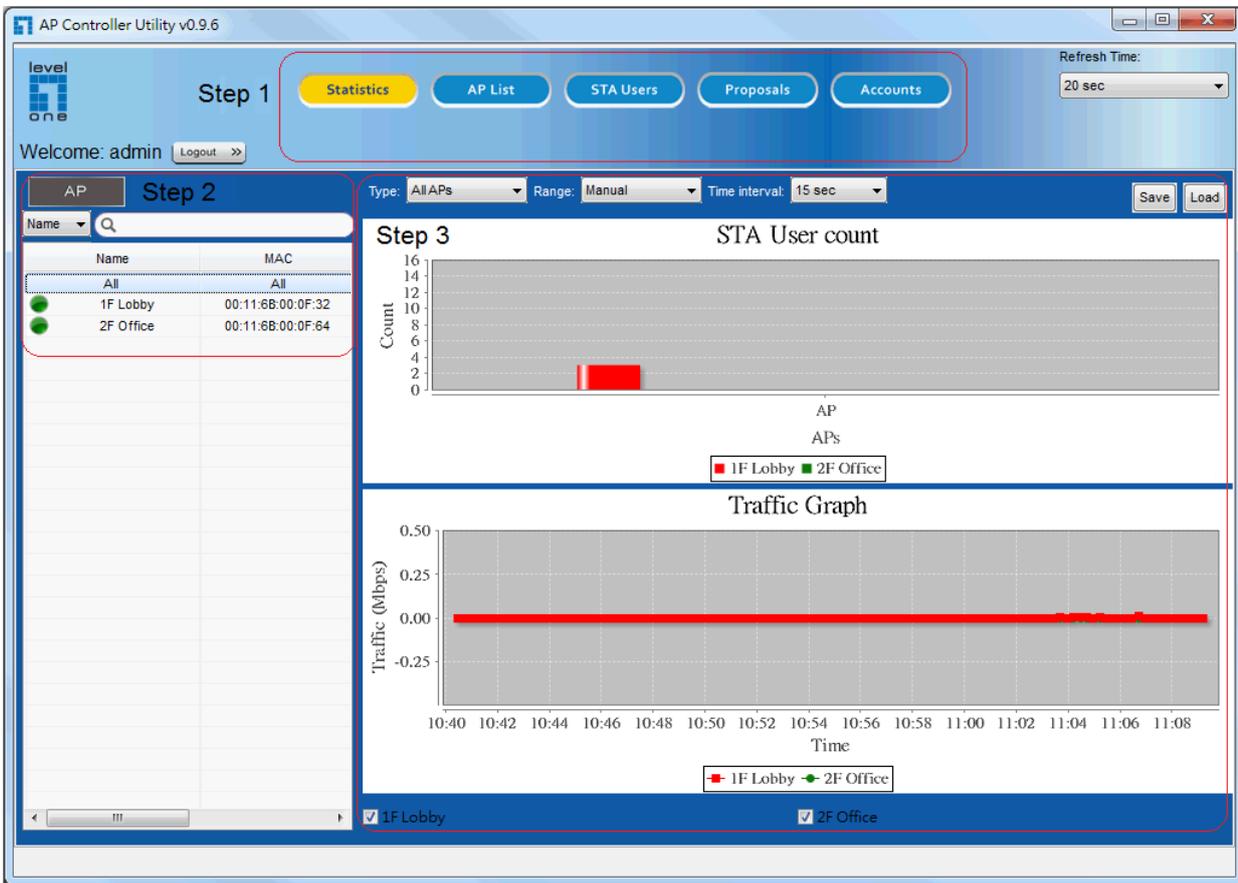
It is very convenient to admin to search AP by “Name” in the AP list.

Select ”AP List” and AP→Click to Modify Name

The screenshot displays the AP Controller Utility v0.9.6 web interface. At the top, there are navigation buttons for Statistics, AP List (highlighted), STA Users, Proposals, and Accounts. Below these, a 'Discover' button is visible. The main content area is divided into tabs: Status, Configuration, and System Tools. The 'Discover' tab is active, showing a table with columns for Name, MAC, Index, Download Traffic, Upload Traffic, Online Users, CPU Usage, Memory Usage, and Work Time. The 'AP List' tab is also active, showing a table with columns for Index, Download Traffic, Upload Traffic, Online Users, CPU Usage, Memory Usage, and Work Time. The 'AP List' table shows one entry with Index 1, 0Mbps Download/Upload Traffic, 2 Online Users, 9% CPU Usage, 51% Memory Usage, and 00:9:13 Work Time.

# Setup Procedure

## AP Controller supports 3 Steps to install



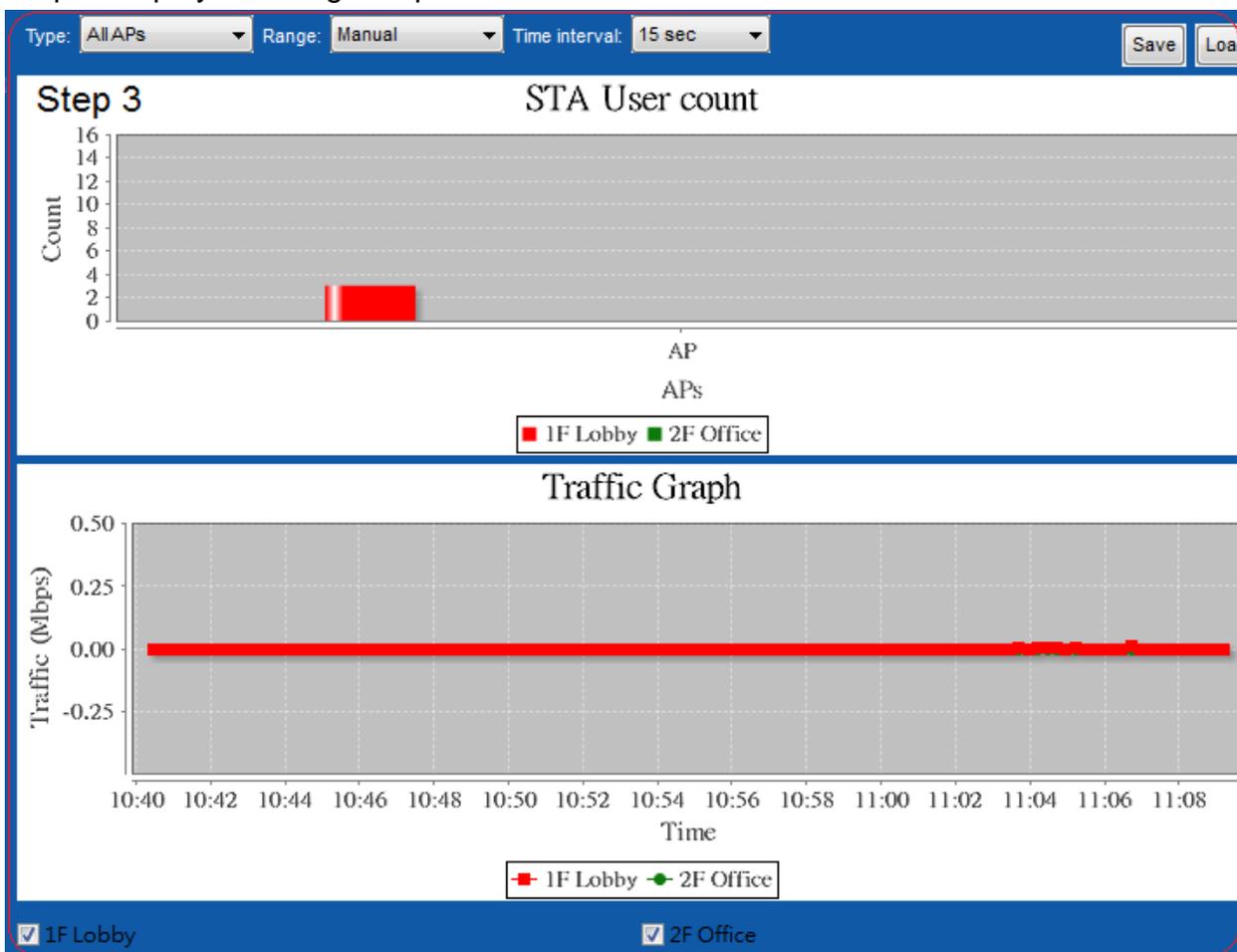
Step1:Select “Statistics”, “AP List”, “STA Users” and “Accounts”  
For example, Select “Statistics”.



Step2: Search or specify which AP to display detail information.(Default display "All".)

AP		Step 2	
Name	Q	Name	MAC
All		All	
<span style="color: green;">●</span>		1F Lobby	00:11:6B:00:0F:32
<span style="color: green;">●</span>		2F Office	00:11:6B:00:0F:64

Step3: Display or configure specified AP



## Chapter 3 Making Configurations

### AP Controller CTA

- **Statistics**
  - AP/STA User Specifying
  - Display Configuration
  - Statistics Type
  - Statistics Recording & Recall
- **AP List**
  - AP Specifying
  - AP Status
  - AP Configuration
  - Apply Proposal
- **STA Users**
  - STA User Specifying
  - STA User Status
- **Proposals**
  - AP Proposal Specifying
  - Proposal Configuration
  - Apply to APs
- **Accounts**
  - User Account Specifying
  - Account Information & Status

#### AP Controller Feature descriptions

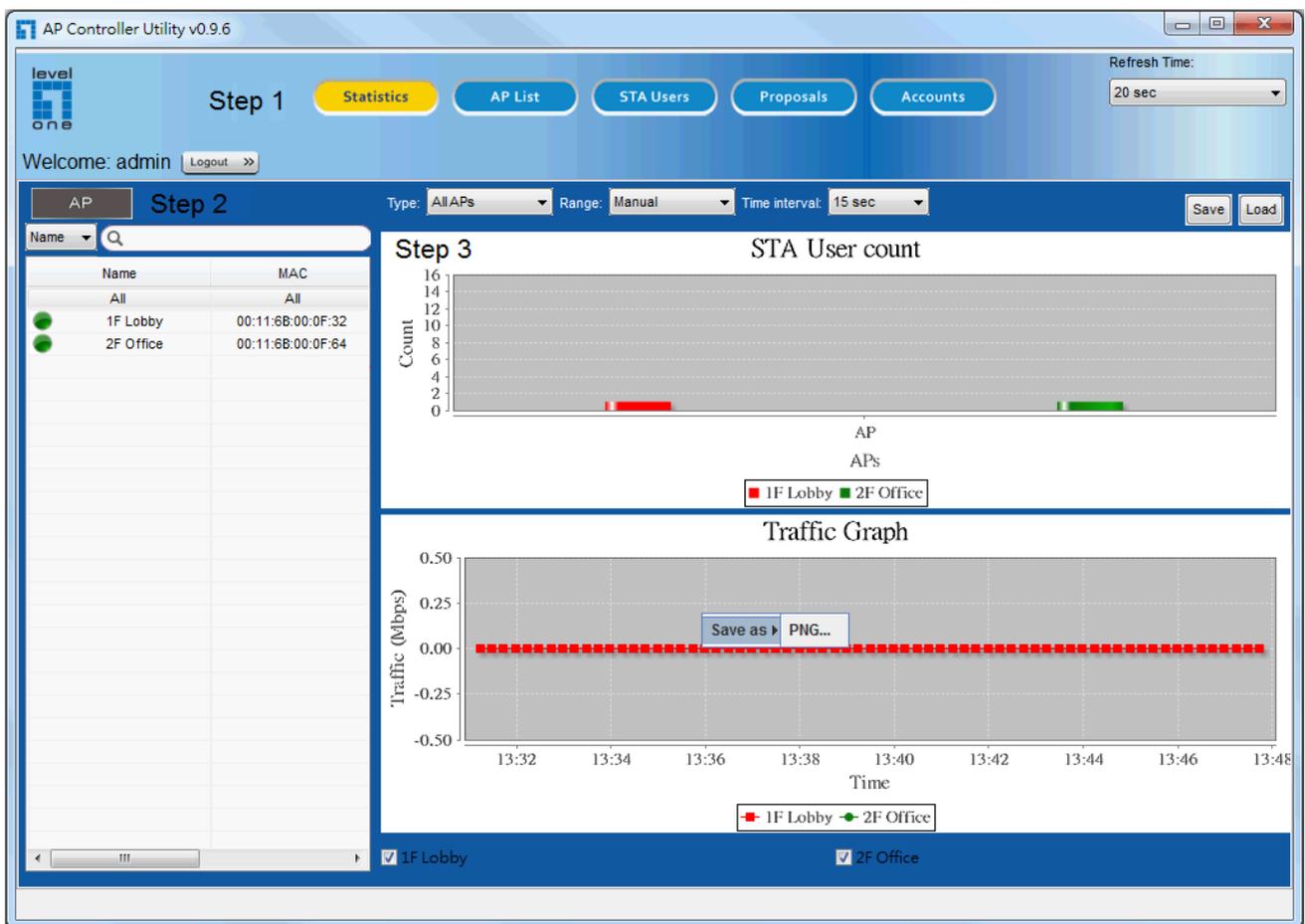
<b>Statistics</b>	AP/STA User Specifying	Whole APs/STA Users or Single AP /STA User View
	Display Configuration	Display Configuration
	Statistics Type	Whole APs/STA Users or Single AP /STA User
	Statistics Recording & Recall	Save as the File for current Status and Statistics
<b>AP List</b>	AP Specifying	Specify Whole APs or Single AP
	AP Status	AP Name, IP Address, MAC Address, SSID, Status, Traffic Statistics, VID Location, Channel, Number of Associated Stations, CPU & Memory Usage
	AP Configuration	General Settings, Wireless Settings and Advanced Settings
	AP Control	Discover, Quick Search ,Batch FW Upgrade, Batch Reset and Batch Reboot
	Apply Proposal	Allow & Deny & Edit & Apply Proposal
<b>STA Users</b>	STA User Specifying	Specify Whole STA Users or Single STA
		List by 2.4G / 5G Operation Band, Quick Search

	STA User Status	Wireless Mode, Signal Strength, Rx & Tx Rate,, Connecting Time
<b>Proposals</b>	AP Proposal Specifying	Add / Edit / Delete AP Proposals
	Proposal Configuration	General Settings, Wireless Settings and Advanced Settings
	Apply to APs	Support Multiple APs configurations
<b>Accounts</b>	User Account Specifying	Add / Edit / Delete User Account
	Account Information & Status	User Name, User Level, Connected Time, Last Login Time Admin Group , User Group

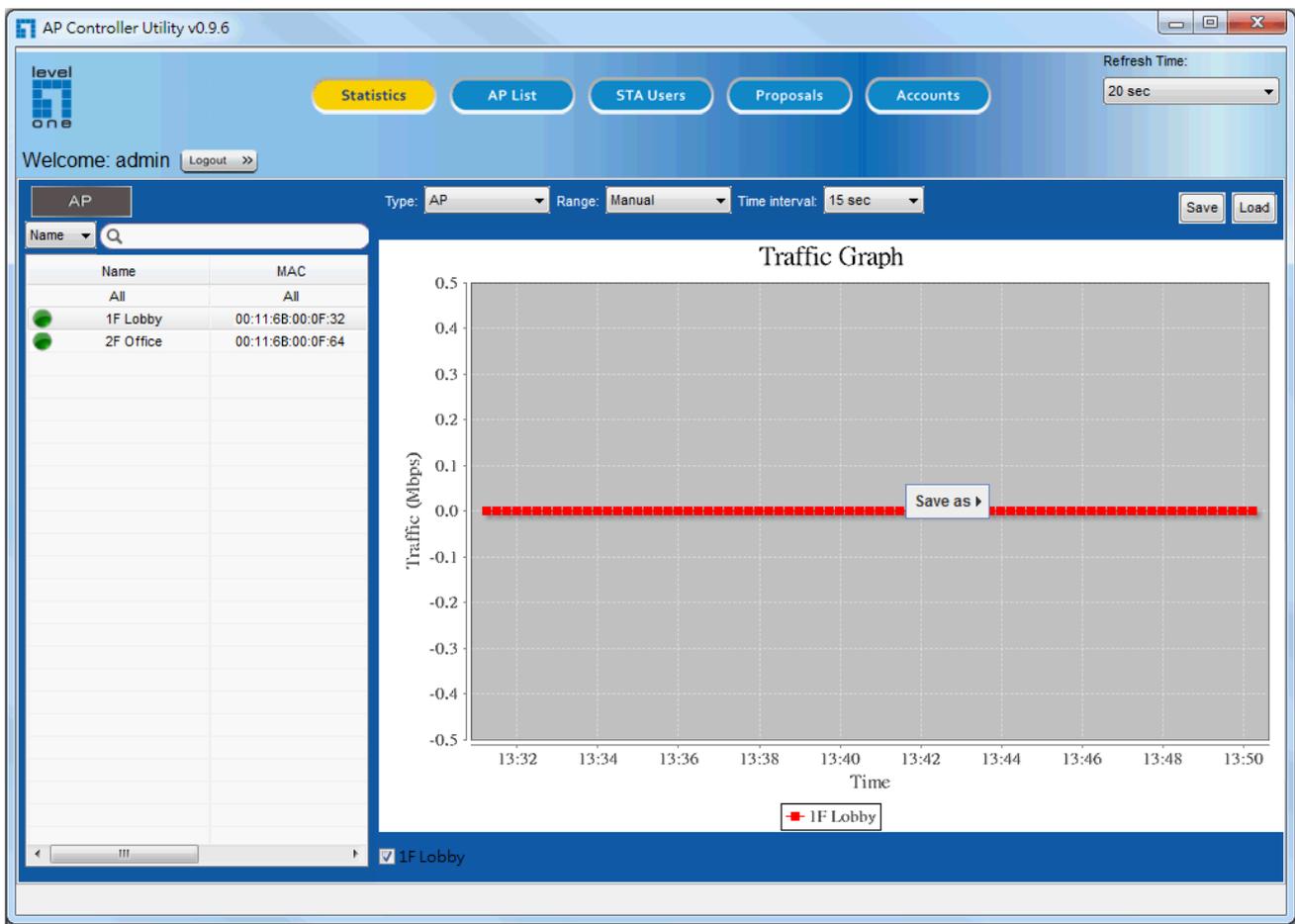
### 3.1 Statistics

You can see Graph of Statistics to specify “All’ or Single AP.

**All:** Select “All” to show as follows: User also saves Traffic Graph as PNG files.

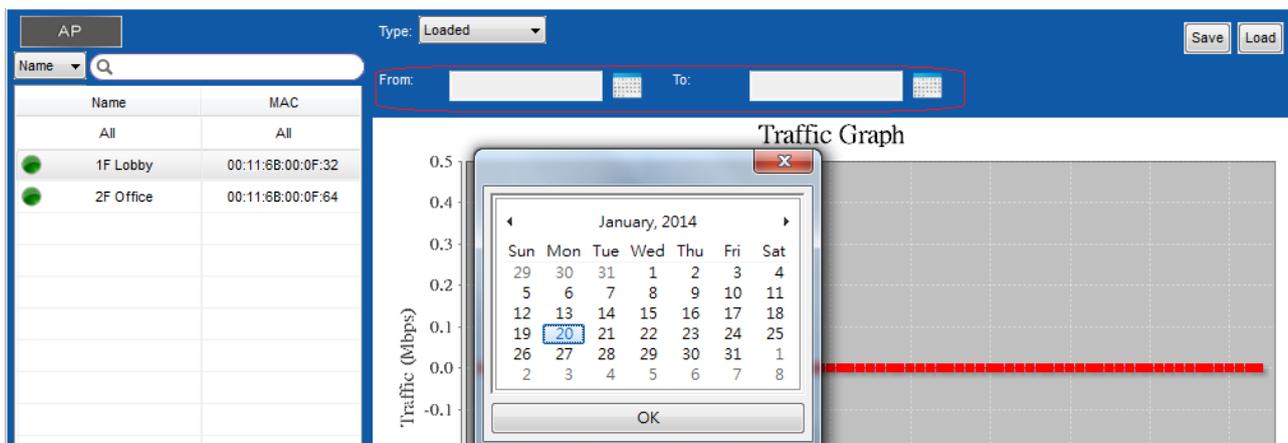


**Specify single AP:**



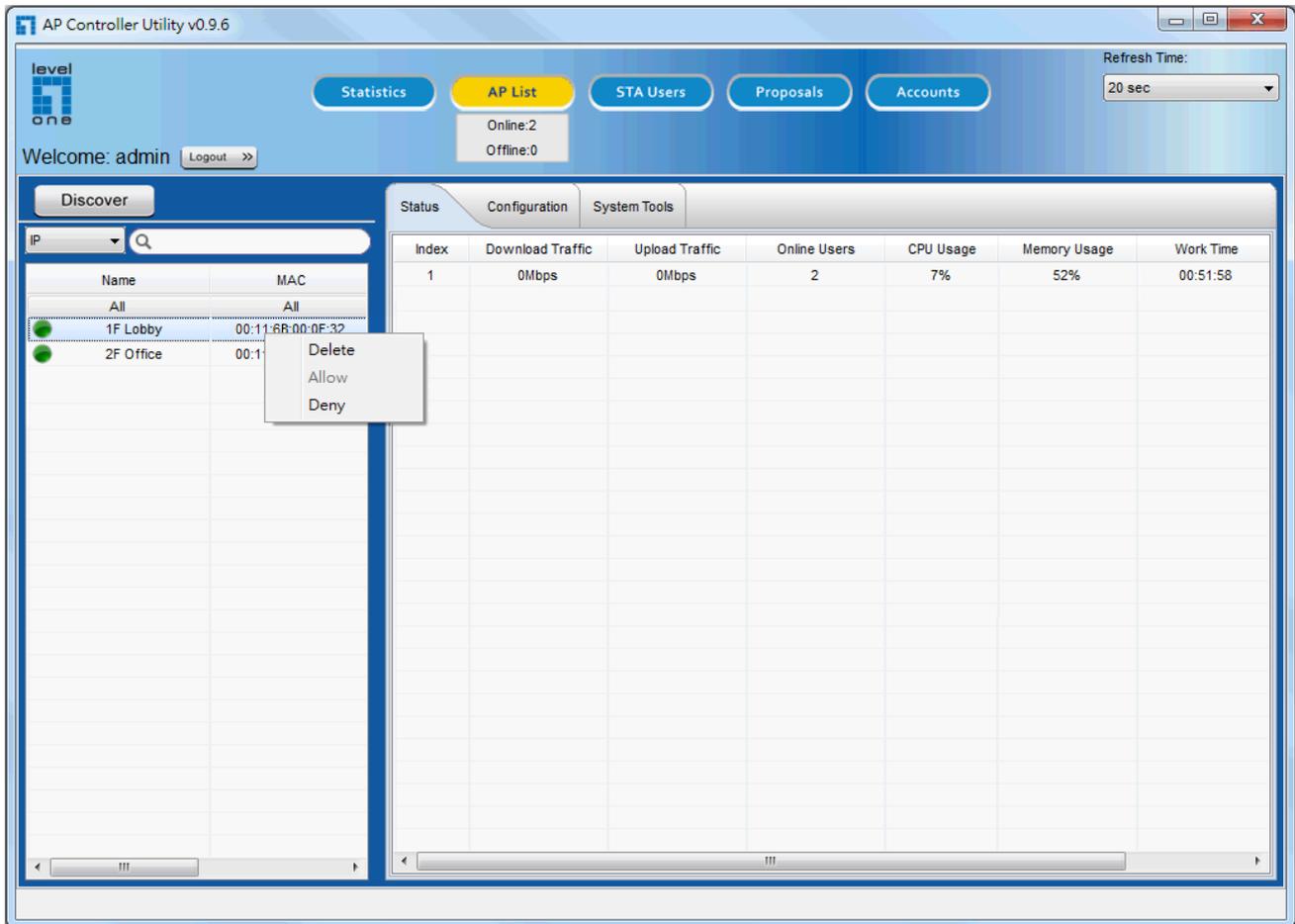
**Save** : User also can Traffic graph as statistic file that AP Controller can execute such file format

**Load** : User load statistic format file to display traffic graph and support to specify time

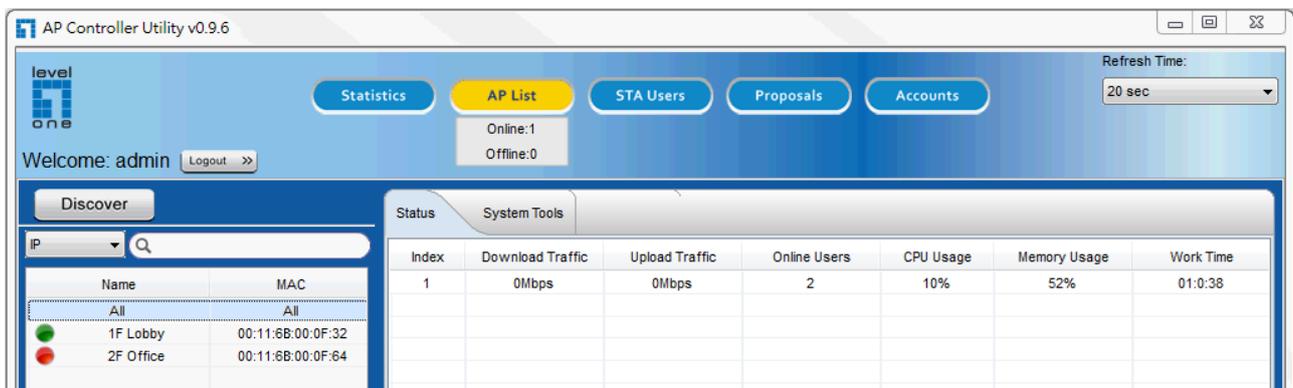


### 3.2 AP List

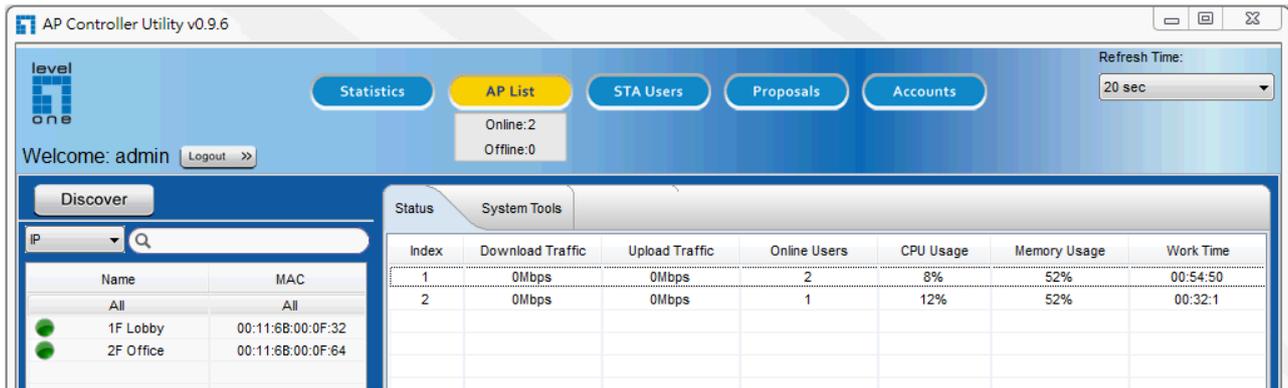
Admin User can remove, Deny and configure APs in this section.



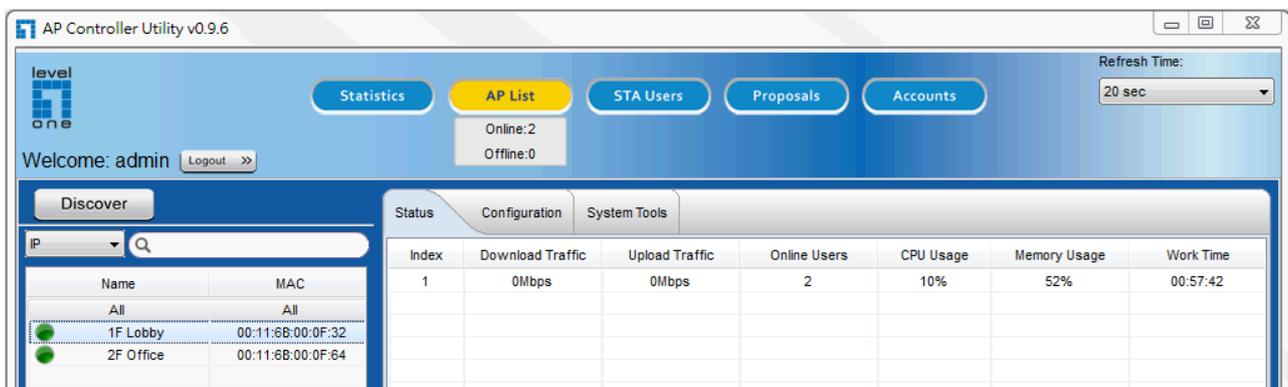
Red Mark mean this AP is deny to access included STA users.



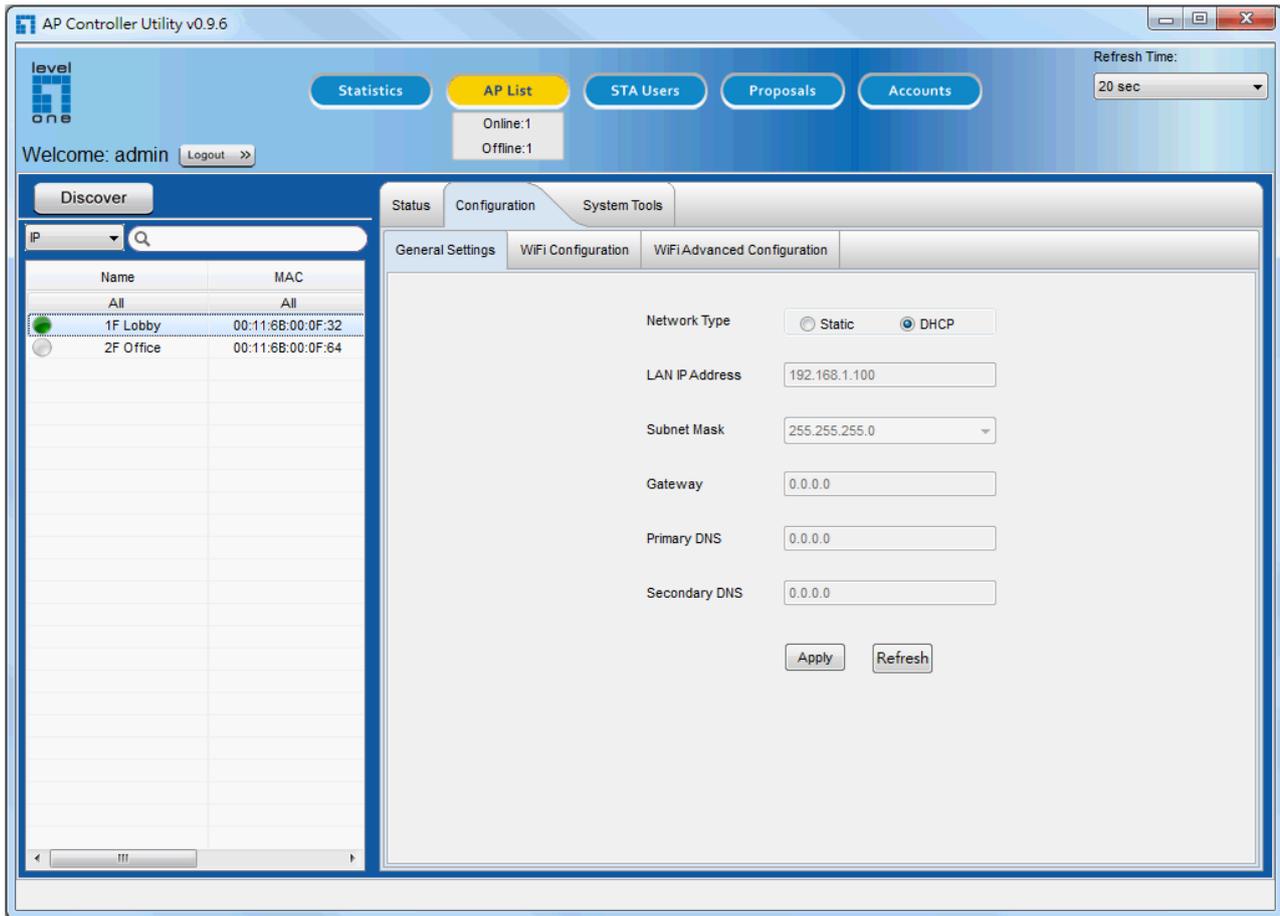
**All:** Select “All” to show Status and System Tools Page.



**Specify single AP:** Search or specify to Show Status , configuration and System Tools of Specify AP.

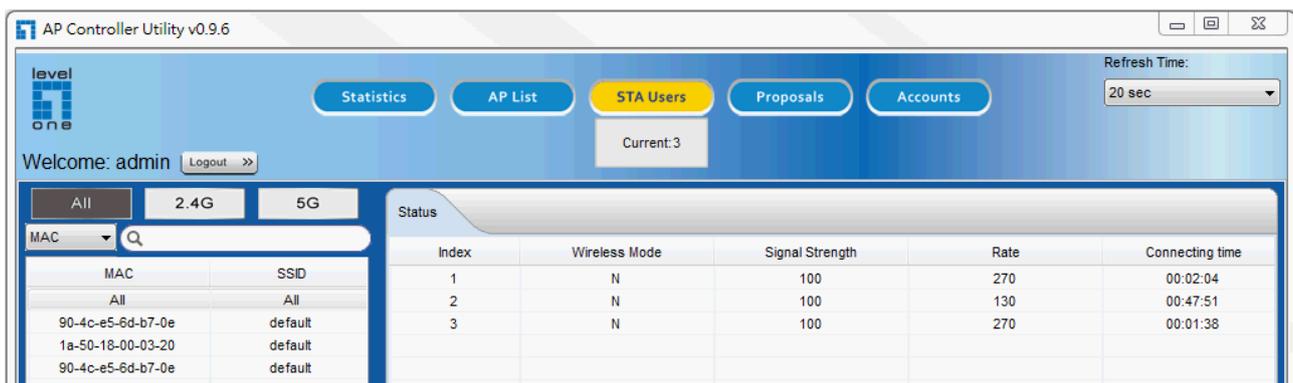


**Specify single AP to configure:**



### 3.3 STA Users

Admin User can view all STA Users connected which AP and VAP in this section.



### 3.4 Proposals

Here, proposal means WiFi configurations, AP supports multiple APs to configuration in this section simultaneously.

AP Controller Utility v0.9.6

level one

Statistics AP List STA Users **Proposals** Accounts

Refresh Time: 20 sec

Welcome: admin Logout >>

Name	MAC
All	All
1F Lobby	00:11:6B:00:0F:32
2F Office	00:11:6B:00:0F:64

WiFi Configuration WiFi Advanced Configuration

Operation Band: 2.4G Single Band

Wireless Module:  Enable

Operation Mode: AP Only Mode

Green AP:  Enable

AP Number: VAP 1  Enable

SSID:

Broadcast:  Enable

VLAN ID:  Enable (3-4094)

Max Stations:  Enable (1-16)

Channel: Auto

Wireless Mode: N only

Bandwidth: 20Mhz

Authentication: Open

802.1X:  Enable

New Load Edit Save Apply to APs

Name

**New:** Add one proposal.

**Load:** Load proposal in the Folders of Desktop

**Edit and Save:**

**Apply to APs:** Select one Proposal to store APs.

## 3.5 Accounts

There are 2 Groups: One is Admin, the other is User. Accounts in Admin Group can discover and configure APs. Accounts in User Group only can browse

The screenshot displays the AP Controller Utility v0.9.6 web interface. At the top, there is a navigation bar with buttons for Statistics, AP List, STA Users, Proposals, and Accounts. A 'Refresh Time' dropdown is set to 20 seconds. Below the navigation bar, a 'Welcome: admin' message is shown with a 'Logout' link. On the left, a table lists user groups: All, Admin, and User. The 'User' group is selected, and its status is displayed in the main area. The status information includes the user name 'User', password '123', group 'User', and connection details: 'Connected Time: 0days, 0:0:0' and 'Last Login:'.

Group	User Name
All	All
Admin	admin
User	User

Status

User Name: User  
Password: 123  
Group: User  
Connected Time: 0days, 0:0:0  
Last Login: