

## A complete Active RFID tracking solution provided by Ananiah Electronics

We have been building and supplying standalone Active RFID devices such as RF8315T (a 8 meters active tag) and RF8315R (an active reader) for some years and found that the usages of these devices did not reach their true potential in objects tracking application such as “where my staffs are?”, “did anyone enter my room during non business hour?”, “where my kid had been in the kindergarten?”, “where my trucks now?” unless there is a central database that stored all necessary data and a web server can present these data as a simple to read report.

In light of the application necessary requirements together with the passion to rollout the Active RFID technology to general public, we spent huge amount of resources on developing a web based and simple to use system. Recently we have setup a central database and a web sever that can serve these applications at very low cost.

### How it works

1. The unique tag ID (4 characters) being picked up by a receiver will be sent to our central server via
  - a. a pc program or;
  - b. a Ethernet modem or;



c. a GSM modem or



d. powerline modem



through internet connection

A free Windows pc program can be downloaded from our support site [www.AnaniahElectronics.com](http://www.AnaniahElectronics.com) if you decide to use your pc to send out data. There are 2 types of receiver for your pc connection – serial or USB.

For corporate user who need more security controls on the receivers, a free routing Windows pc is available to be free downloaded. The pc program reading data from the receiver will not send out data directly to our server, it will send out the data to another routing pc within your local network that should have internet access. The free routing program installed on this routing pc will send out the data to our central database.

Sending data via Ethernet modem is quite straightforward. You need to configure our central database IP and the port number to the Ethernet modem. Plug the Ethernet modem to your local network will do. We are selling Ethernet modem as well.

Sending data via GSM modem is also straightforward. You need to subscribe a service from your local telecom company. Setup up the APN, configure our central database IP and port number will do. The GSM modem must be TCP/IP stack enabled otherwise it will not work. We are selling GSM modem as well.

Sending data via powerline modem. Powerline modem serves as a local network connection by using your power line. You need to plug in the receiver to a Ethernet modem and the plug in the Ethernet modem to the powerline modem. On the other end you can plug the powerline modem to your switch. The tag ID being picked up by the receiver will be converted as a TCP/IP data via the Ethernet modem. The TCP/IP data will then be sent to your switch through your powerline via the powerline modem. We are selling UK style powerline modem as well.

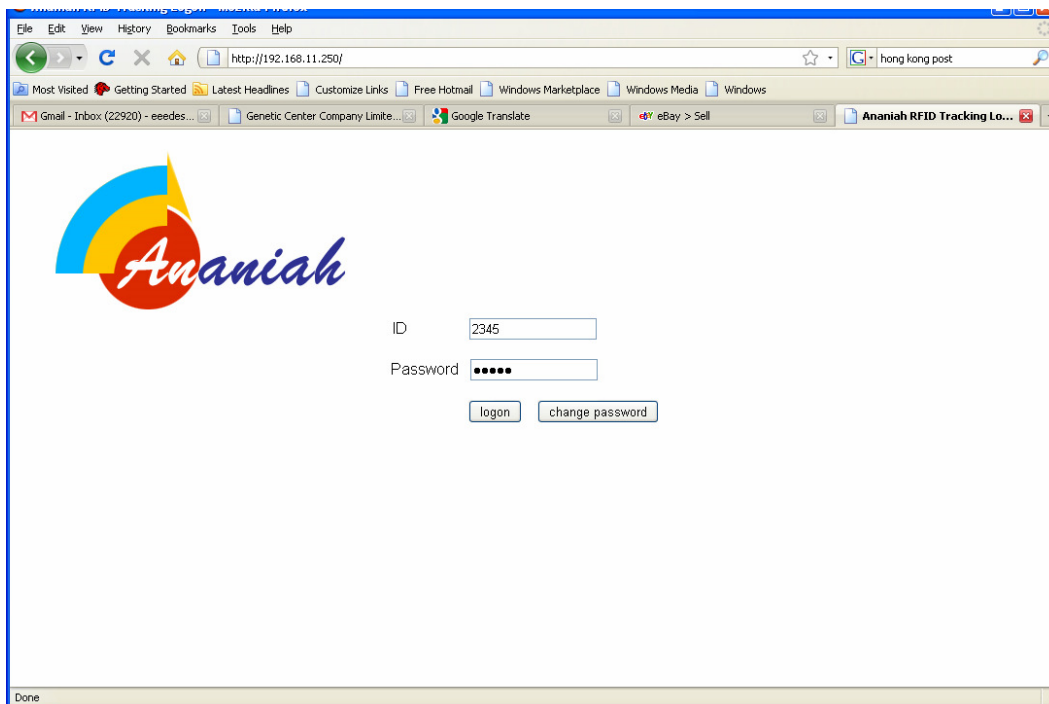
2. The paired up data, tag ID + receiver id, together with the GMT time will stored on our central database.
3. In order to make the report simple and easy to be read, we will keep the first and the last data (will be indicated on the report) of the same receiver until another receiver is picking up the tag ID. This will enable you to know when did the tag first appear and disappear. This can be used to know “when did Clifford arrive at Room 101 and what time he left Room 101” and “where he had been after leaving Room 101”
4. You can view “where the tag has been” via standard browser
5. Report can be exported in Excel format for further processing

## **What you can do**

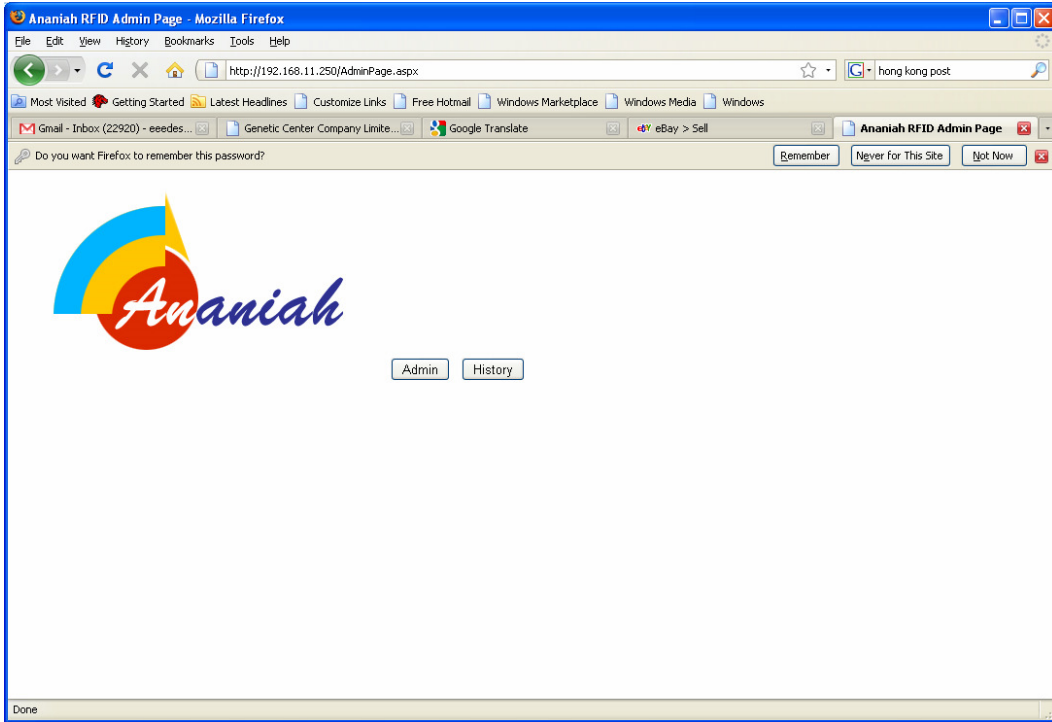
1. You can assign a meaningful nickname for a receiver and a tag for easy to remember. The ID for a tag is a unique 4 characters such as 1Fmk. You can assign a nickname Clifford for this tag ID and you can use Clifford as a search name. The ID for a receiver is a unique 6 characters such as A00001. You can assign a nickname Room 101 for this receiver. Important – please don't use ',' as part of the nickname as this will mislead Excel to open an export report.
2. You can create logon account for your users. There are 2 types of users – administrator and general users. Administrator can create/suspend logon, overwrite password, assign tag/receiver nickname, temporary suspend a tag/receiver. You can also **ASSIGN** some of all your receivers to your friend. Your friend can use your Assigned receivers to pick up their tag signal which will expend their tracking network.
3. Reports can be exported as an Excel file.

## Screen dump

### Logon screen

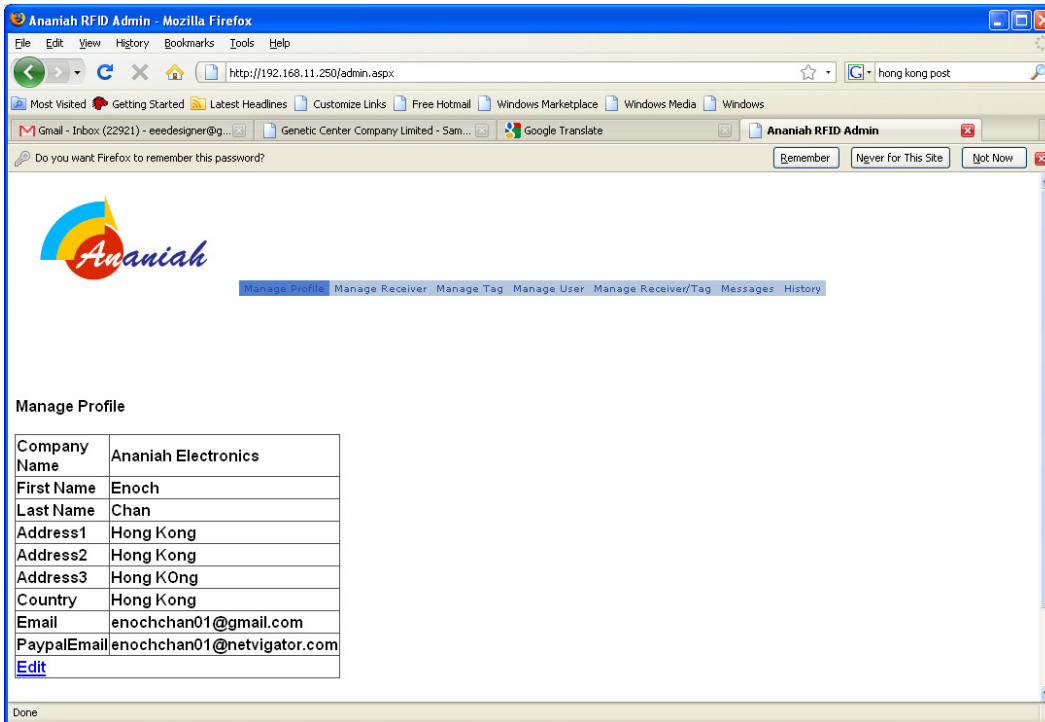


If you are an administrator, you will see the following screen otherwise you will be diverted to History screen



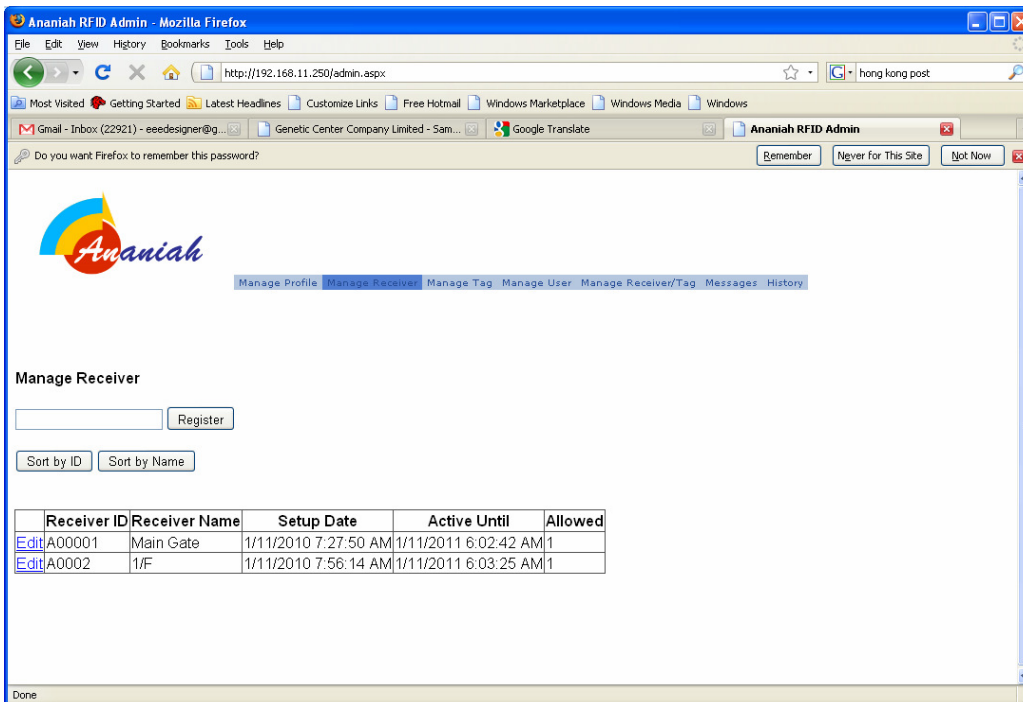
Administrator can manage personal profile, manage receiver, manage tag, manage user, manage receiver/tag relationship, read message

Manage personal profile



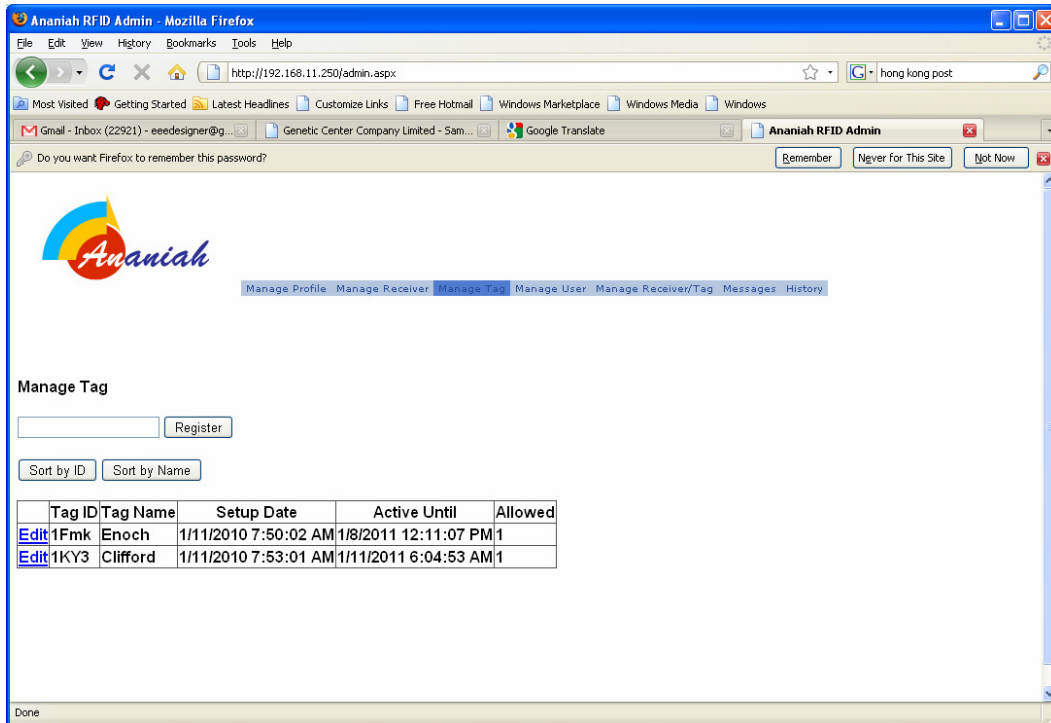
Manage receiver – you need to register a receiver before it can be used. Type in the receiver number and click register. All registered receivers will be shown on the lower part of the screen.

The Receiver Name and Allowed are editable. Set allowed to 0 will suspend the receiver.

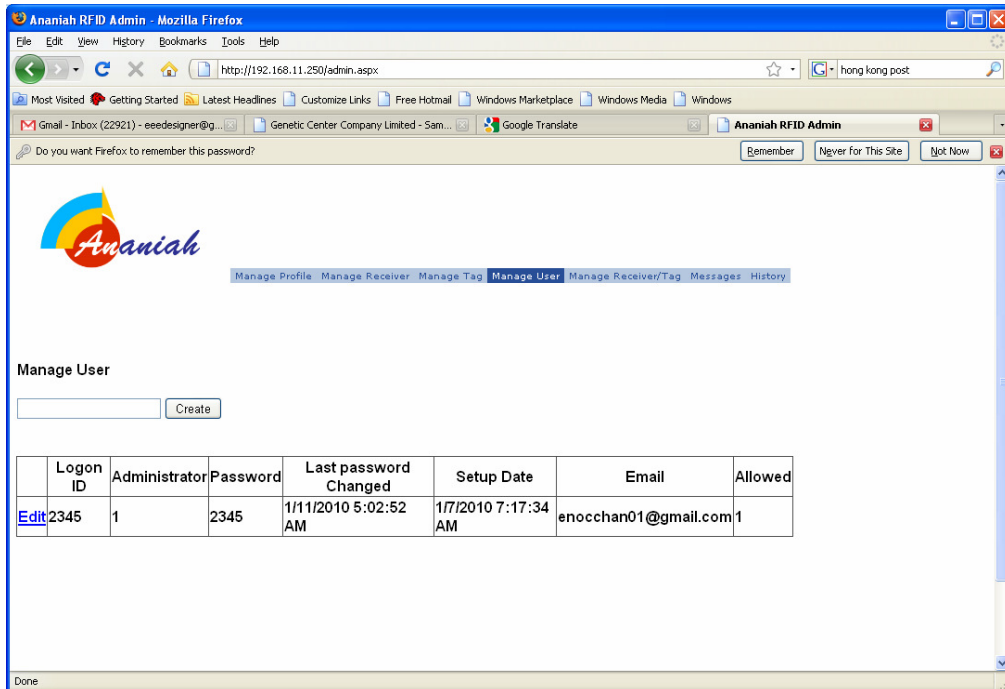


Manage tag – you need to register a tag before it can be used. Type in the tag number and click register. All registered tags will be shown on the lower part of the screen.

The Tag Name and Allowed are editable. Set allowed to 0 will suspend the receiver.



Manage user – type in new logon name and click create. All logon will be shown on the lower part of the screen. Logon ID, Administrator, Password, Email and Allowed are editable. Set Administrator to 0 will remove administrator rights and setting Allowed to 0 will suspend this logon



Manage receiver/tag – you can assign receiver and manage your receiver/tag link in this page.

#### How to assign receivers

- To assign 1 receiver – type in your receiver number and click Assign button. You will be asked for the FULL NAME you would like to assign to. You need to know exactly the same as your friend registered with our system. For example your FULL NAME is the Company Name in the Manage Profile screen. You will see the receiver name and who you have assigned to under Assigned List if this is successful
- To assign all receivers – click Assign All button. You will be asked for the FULL NAME you would like to assign to. You need to know exactly the same as your friend registered with our system. For example your FULL NAME is the Company Name in the Manage Profile screen. You will see the receiver name and who you have assigned to under Assigned List if this is successful
- To deassign 1 receiver – type in your receiver number and click Deassign button. You will be asked for the FULL NAME you would like to assign to. You need to know exactly the same as your friend registered with our system. For example your FULL NAME is the Company Name in the Manage Profile screen. You will find the receiver name and who you have assigned to under Assigned List will be removed if this is successful
- To deassign all receivers – click Deassign All button. You will be asked for the FULL NAME you would like to assign to. You need to know exactly the same as your friend registered with our system. For example your FULL NAME is the Company Name in the Manage Profile screen. You will find the receiver name and who you have assigned to under Assigned List will be removed if this is successful

What is Receiver/Tag Link – This is used to control which receiver can pick up which tag ID. This is for advance securities control. The default setting is link up all. When you register a receiver or a tag, the system will link up all for you. Allowed is editable and setting this to 0 will break the link and the receiver will not pick up that tag ID. Click on Select All will link up all while click on Deselect all will cut all links

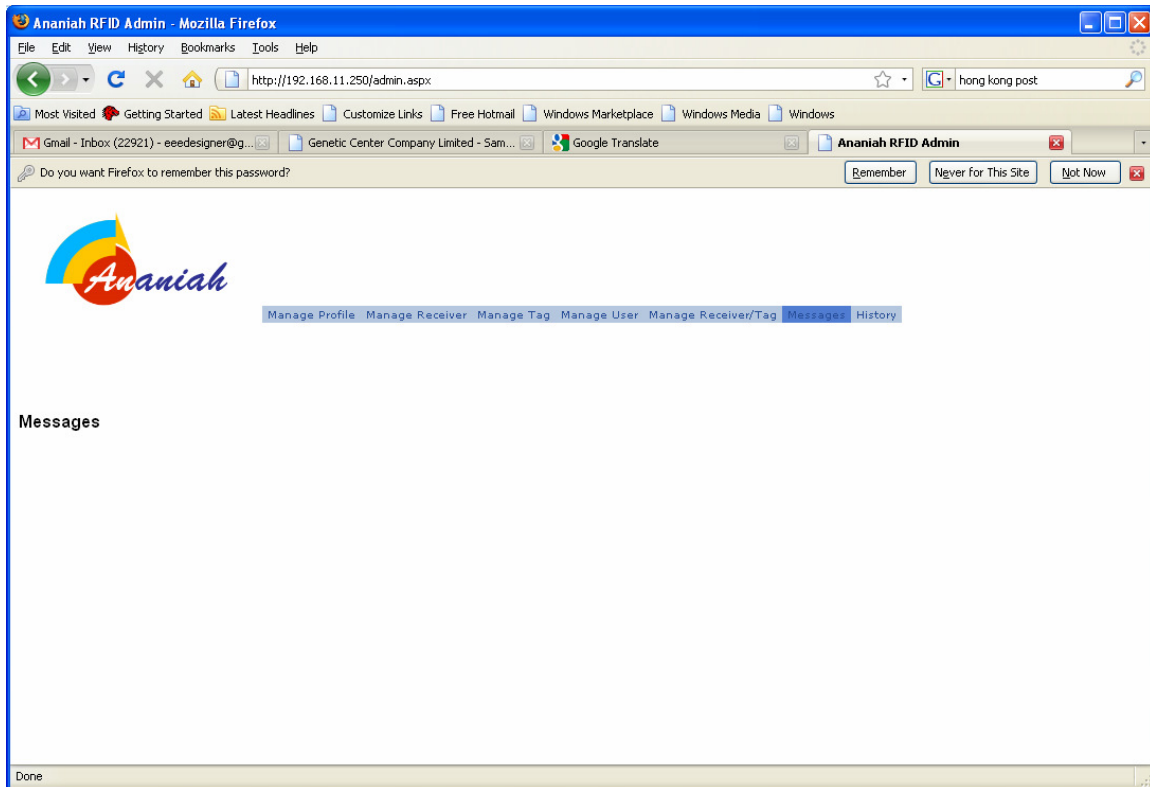
**Manage Receiver/Tag**

Assigned List

Linkage Information

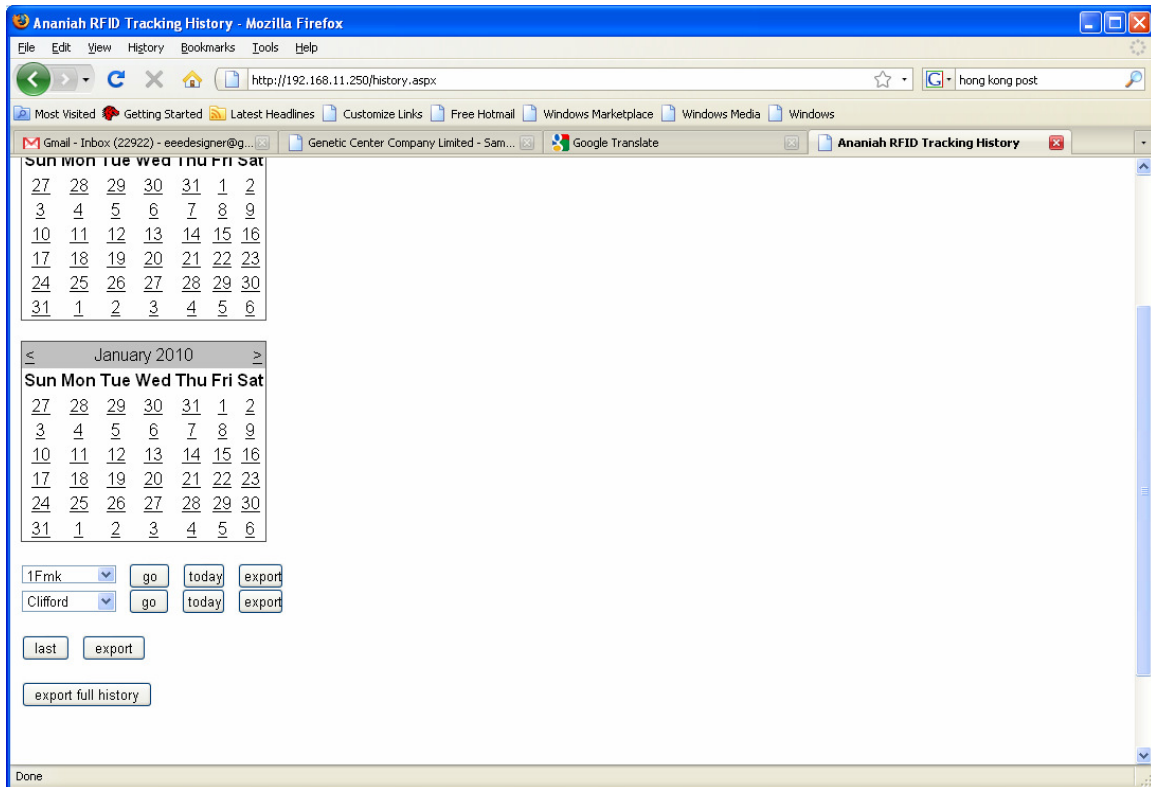
	Receiver Name	Receiver ID	Transmitter Name	Transmitter ID	Allowed
<a href="#">Edit</a>	1/F	A0002	Enoch	1Fmk	1
<a href="#">Edit</a>	1/F	A0002	Clifford	1KY3	1
<a href="#">Edit</a>	Main Gate	A00001	Enoch	1Fmk	1
<a href="#">Edit</a>	Main Gate	A00001	Clifford	1KY3	1

Message from the system – you will receive message from the system after you assigned receivers to someone or someone assigned receivers to you.



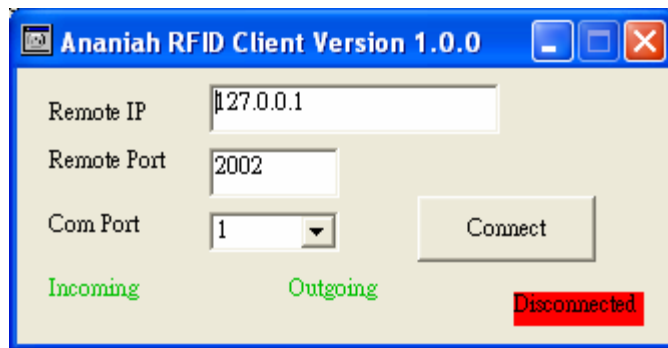
History – you can do the history query by using Tag ID or Tag Name.

- Tag ID – the first drop down list contains all your Tag ID. Select a Tag ID and click on today button will show this tag history within 24 hours. Select the first calendar will control your report starting date while selecting the second calendar will control your report ending date. Click on go button will show this tag history between a period. Click on export button will export the report as an Excel file
- Tag Name - the second drop down list contains all your Tag ID. Select a Tag ID and click on today button will show this tag history within 24 hours. Select the first calendar will control your report starting date while selecting the second calendar will control your report ending date. Click on go button will show this tag history between a period. Click on export button will export the report as an Excel file
- The latest location of all tags – click on last button will do.
- Export the latest location of all tags – click on the export button next to the last button
- Export all tags between a period – select the start date from the first calendar. Select the end date from the second calendar. Click on export full history button will do



## What you need to start

1. [XRF8315R-S](#) or [XRF8315R-U](#) – a receiver with enclosure. –S or –U stands for serial or USB connection
2. [XRF8315T-S](#) – 8 meters tag with enclosure
3. If you want to use Windows PC to send our data, please download the free program from [AnaniahRfidClient.zip](#)



## How to start

1. We will send you your administrator password after setting up your account. You need to apply for an administrator account if you are the new customer. We don't know whether you are a new customer or not but you need to be aware of the following
  - a. Receiver and Tag registered by the same Company will be considered as the same group. The receiver/tag link will be linked up
  - b. Receiver and Tag registered by different Company will be considered as different group. No receiver/tag link will be established.
2. Register your receiver/tag when you receive your items
3. Hook up the receiver. If you are using Windows PC for connection, you need to start the connection program. Please also put down the correct Com port number and click connect button
4. Plug in the battery to the tag
5. check the History page

### **Service charges**

Charges listed below may be updated in the future. Please check from our site.

Each Receiver – will include 2 logons, 360 days service charge is US\$49.5

Each Tag – 360 days service charge is US\$19.5

Each Logon – 360 days service charge is US\$19.5

### **Hardware**

All purchased hardware will cover 360 days service charge, however we will start to count the service when we ship out your item. All hardware will have a 1 year warranty (battery will not be covered)

### **Hardware upgrade**

If you have our Active RFID devices such as RF8315R, you can upgrade your device at very low cost.

Tag – subscribe the service will do

Receiver – return the old receiver for upgrade will enjoy US\$20 discount.

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