

CERIO Corporation

Network Control Server

(SP-800)



Quick Installation Guide

1. Introduction

CERIO's Web authentication device of the special use network control server (SP-800), the SP-800 must connect printer. Administrator can use SP-800 to generate a new account for the remote control Cerio's Web authentication device and print authentication account. You can refer to SP-800-PRINTER and SP-800-QRCPRT for Cerio's .

2. Product Outward Appearance

Product Front



(1) LED Indicator

Power: Power LED.

Status: Status LED, LED lights up status is working

Lock: Button lock LED. A light up status is locking.

Link/Act: Network connection status. A LED light up status is connecting.

100M: Ethernet use 100Mbps will light up.

(2) Function number display.

(3) Control buttons.

- / + : The buttons can control number for increase or reduce, number display with set Cerio's Controller function dependent.

Print out: Click the button will print account ticket.

FUNCTION button:

- ✧ **Lock function:** Press and hold about 5 seconds the Lock LED will light up, it represents the key has been locked.
- ✧ **Locked eliminate function:** Press and hold about 5 seconds the Lock LED will off, it represents the key locked eliminate
- ✧ **Connection test function:** After click "Function" button will display number 1 and click "Print out" button the system can print test information this means has completed.
- ✧ **Print information for Qty:** Click "Function" button and select number 8 or 9 can printer account Qty. No.8 can print "Early Balance". No.9 can print "Current Balance" information.

CANCEL: Clears "Function" events

REPEAT: Print the previous ticket.

(4) Console 1-2 Port

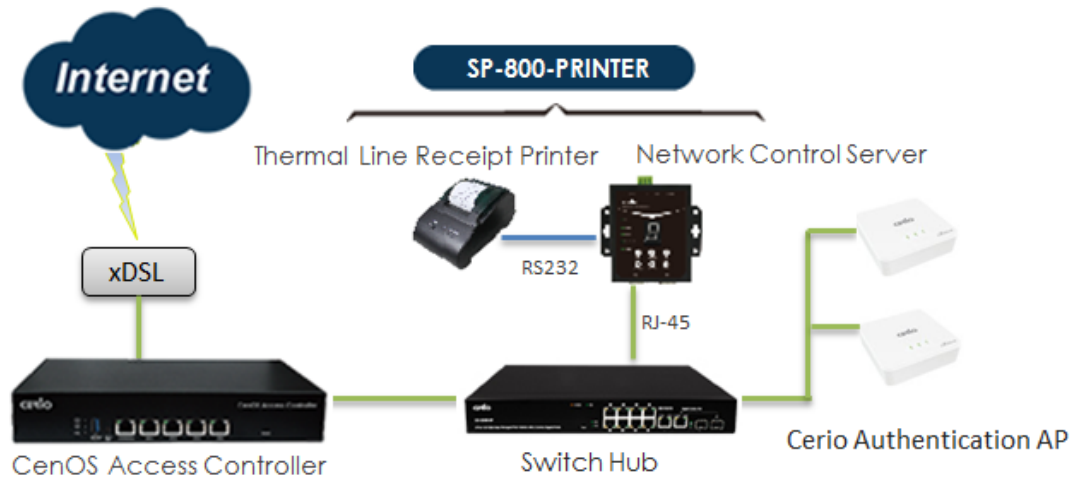
- (5) RJ-45 Ethernet Port
- (6) Screw Terminal Block
- (7) DC-JACK power port



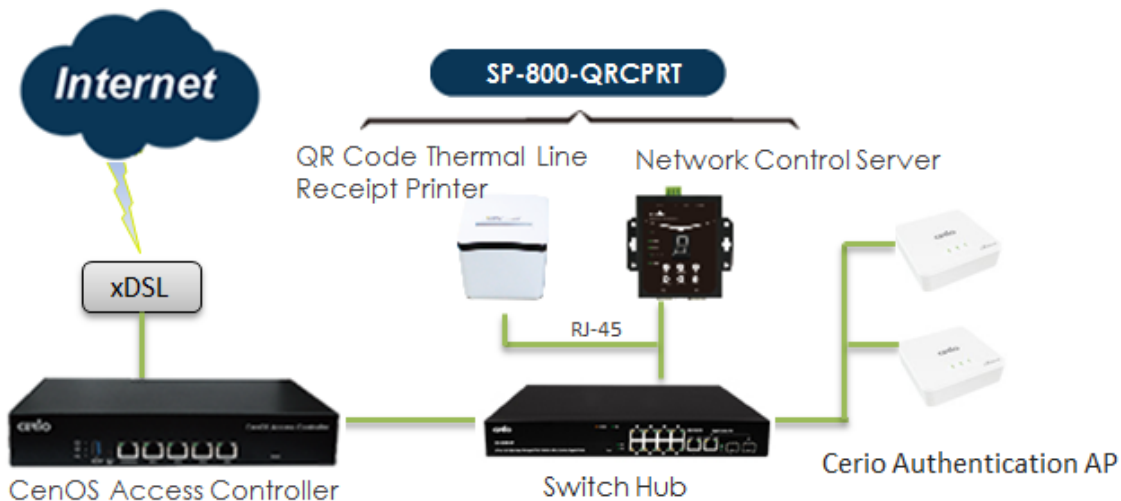
3. POS system application architecture for Hot spot

Cerio's Web authentication POS system contains Controller + SP-800 + Thermal printer and Cerio's Access Point etc.

Cerio's controller mounted SP-800-PRINTER for POS system application diagram.

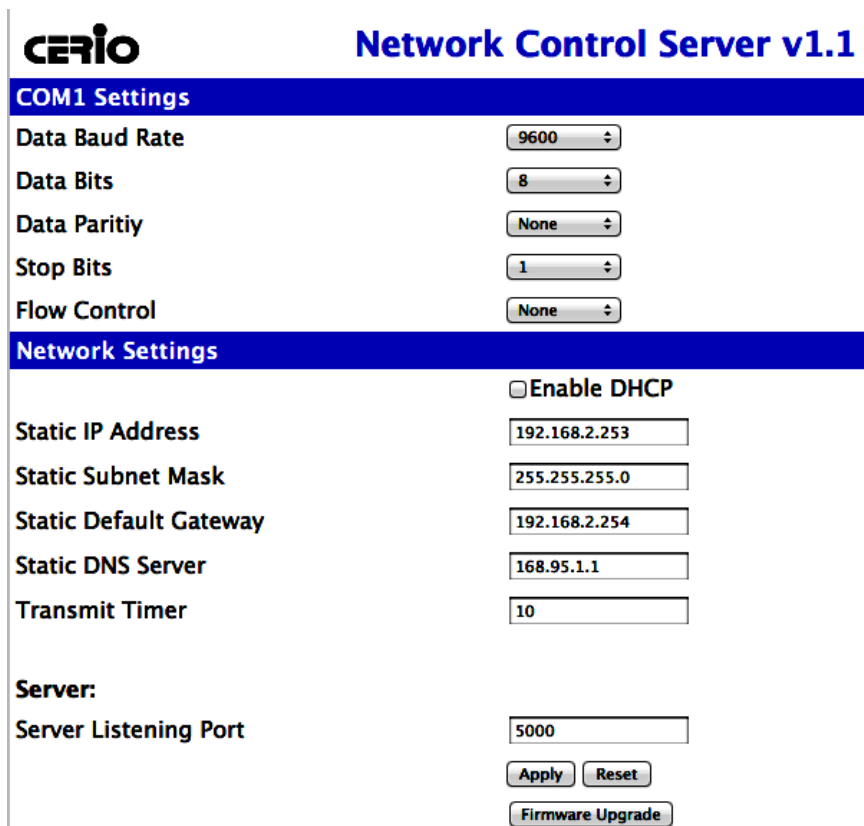


Cerio's controller mounted SP-800-QRCPT for POS system application diagram.



4. Login management interface for SP-800

Network control server(SP-800) built-in web management interface. After install POS system architecture, administrator can use network connect to SP-800 interface and management. The SP-800 manager URL is <http://192.168.2.253/setting.htm>, please open IE or Firefox browser and enter URL address to set function.



The screenshot shows the CERIO Network Control Server v1.1 web interface. It is divided into two main sections: COM1 Settings and Network Settings. The COM1 Settings section includes dropdown menus for Data Baud Rate (9600), Data Bits (8), Data Parity (None), Stop Bits (1), and Flow Control (None). The Network Settings section includes a checkbox for Enable DHCP, and text input fields for Static IP Address (192.168.2.253), Static Subnet Mask (255.255.255.0), Static Default Gateway (192.168.2.254), Static DNS Server (168.95.1.1), and Transmit Timer (10). Below these is a Server section with a text input for Server Listening Port (5000) and buttons for Apply, Reset, and Firmware Upgrade.

- **COM1 Setting:** Recommend use default ◦
- **Network Setting:**
 - **Enable DHCP:** Administrator can select enable or disable DHCP client.
 - **Static IP Address:** Administrator can set IP address for SP-800.
 - **Static DNS Server:** Administrator can set IP address for DNS server. ◦
 - **Transmit Timer:** system to detect controller connect status (millisecond).
 - **Server Listening Port:** SP-800 connection to controller use Port. (SP-800 and controller must be set the same port).

After setting is complete, please click Apply button.

5. Install normal thermal printer

Install step for thermal paper

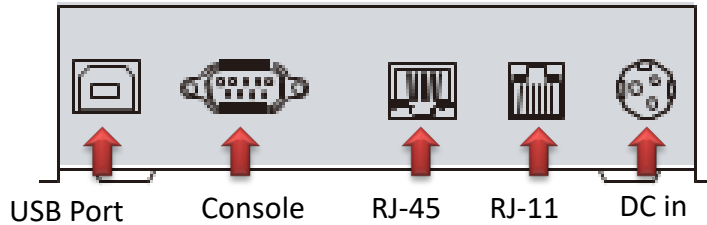
- 1) Open the cover for thermal printer
- 2) Place the thermal paper in the printer groove
- 3) After pull the paper out a small portion please close the lid for thermal printer



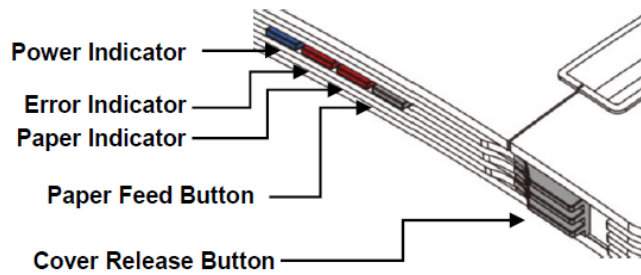
- 1) SP-800 connection to thermal printer use console port
- 2) DC Power in.
- 3) Power on/off switch.

6. Install QR Code thermal printer

Behind the printer connection functions support USB / console / RJ-45 /RJ-11 and Power.
As follows



PS. Connect the controller only need to use RJ-45 and power.



Login web page for QR Code printer.

The QR Code printer support web management interface, administrator can login web page and modify IP address for the QR Code printer.

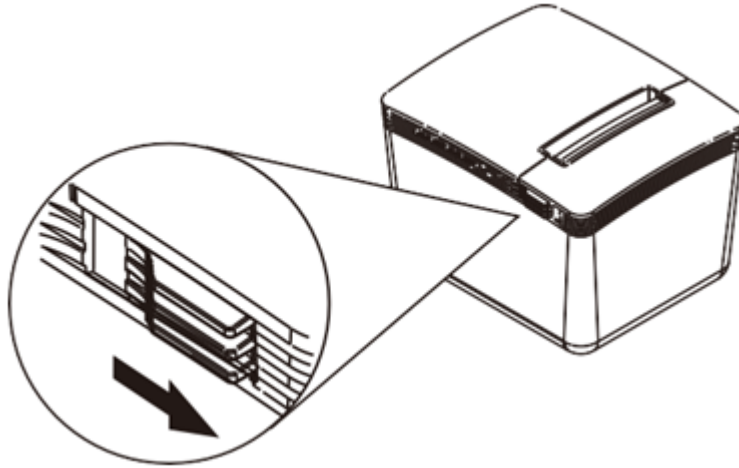
QR Code Printer default IP address: **192.168.123.100**

As follows

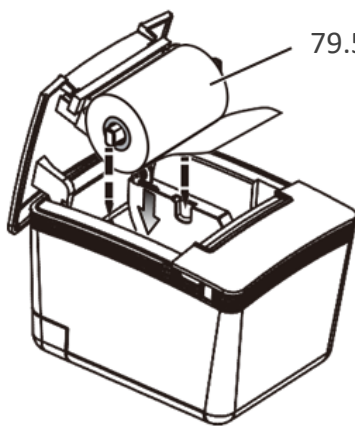


Install or Replace Paper Roll for QR code printer

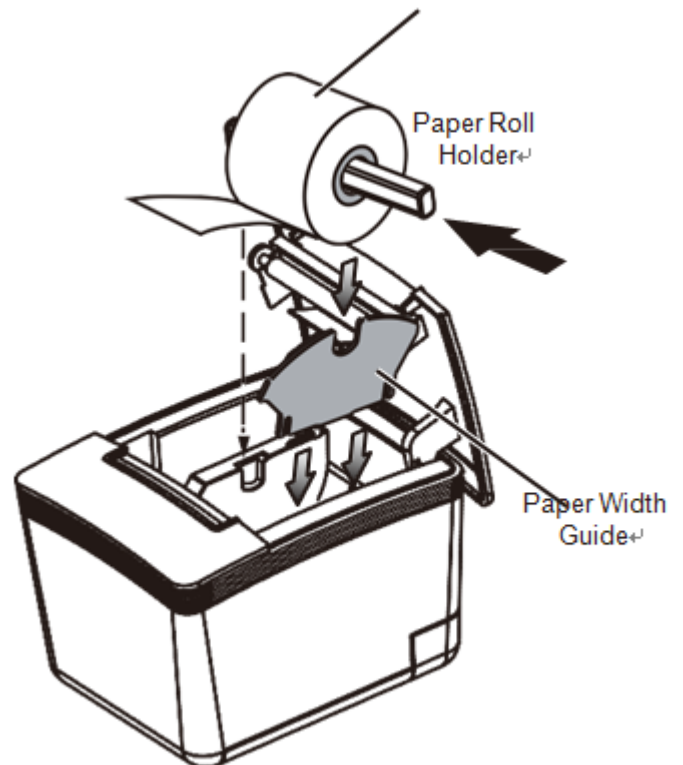
- 1) Pull the Cover Release Button to open the Cover.



- 2) Roll out and install the Paper Roll with Holder into the Printer. (with the edges of the paper roll holder fitted onto the holder slots)



57.5mm size for thermal paper

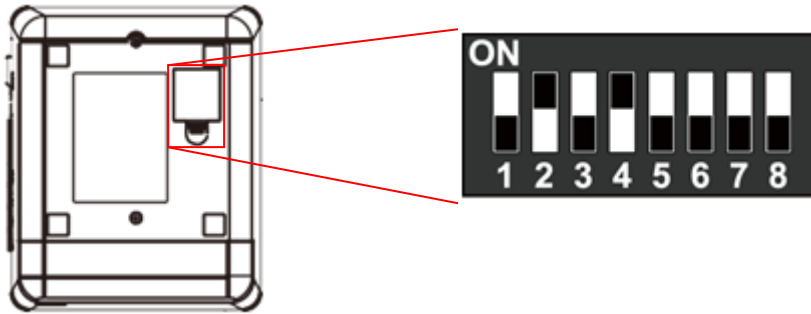


When using a paper roll in smaller width, install the Paper Width Guide first, and then install the paper roll with holder.

3) Please close the lid for thermal printer.

DIP Switch Setting for QR code Printer

DIP Switch in printer bottom.



DIP	Function	ON	OFF
1	Paper Cutter	No	Yes*
2	Audio Alarm	Yes *	No
3	Print Density	Dark	Light *
4	Two-byte Character Code	*No	Yes
5	Character Per Line	42	48 *
6	Cutter with Cash Drawer	Yes	No *
7 & 8	Baud Rate Setting	---	OFF*

Baud Rate Setting (DIP 7, DIP 8)



7. Set web authentication steps for POS system

Cerio's Web Authentication System consists of the controller and SP-800 + Printer; administrator can use SP-800 remote control Cerio's controller to create an account and print out.

The architecture can refer to "[3. POS system application](#)" description

Set web authentication steps, as follows

(Take Cerio's DR-3000 as the case)

Steps1

Login SP-800 web interface to set IP address and set same network segment

You can refer to "[4. Login management interface for SP-800](#)"

Steps2

If SP-800 with QR code Printer, administrator must set IP address for QR code Printer (same network segment for your network). You can refer to "[6. Install QR Code printer](#)"

Steps3

Login Cerio's Controller "DR-3000" page (Refer controller user manual) to enable RADIUS Server.

As follows

Please click menu "**Account**" → "**RADIUS Server**" for Cerio's DR-3000

Service	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable
Authentication Port	<input type="text" value="1812"/>	
Accounting Port	<input type="text" value="1813"/>	
Radius Secret	<input type="text" value="(4-32 chars)"/>	

Steps4

Set the connection between DR-3000 and SP-800. Please click menu "**Account**" → "**Thermal Printer Setup**" to enable function, as follows

Thermal Printer List					
Printer#	Service	IP Address	Description	Balance Time	Action
1		192.168.2.263		00:00	Setup
2				00:00	Setup
3				00:00	Setup
4				00:00	Setup
5				00:00	Setup

Printer Setup

Service Enable Disable

Printer Setup

IP Address:

Command Port:

Printer Type:

COM Port:

New Look Password:

Description:

Balance Time:

- **IP address:** Please enter IP address for SP-800 (You can refer to [4. Login SP-800](#))
- **Command port:** Please enter Command for SP-800 (You can refer to [4. Login SP-800](#))
- **Printer Type:** Administrator can select Printer for normal or QR Code Printer.
 - **QR code Printer :** If select QR Code printer, administrator must choose use connection for IP address or com Port.(Recommend use IP address manner.)

Printer Type:

COM Port:

Printer IP Address:

Printer Port:

QRCode Type:

- ✓ **Printer IP Address :** Please enter IP address for QR code printer. (You can refer to [6. Install QR Code Printer](#)).

- ✓ **Printer Port** : Please enter command port for QR Code Printer. (You can refer to [6. Install QR Code Printer](#))
- ✓ **QR Code Type** : Administrator can select print out size for QR code.
- **COM Port**: Please select connection type for printer.



1. If use normal thermal printer and connect to com1 port of the SP-800, please select **COM1**
2. If use QR Code Printer, please select **RJ-45**

- **New Lock Password** : Enter pass key of the DR-3000 to connect SP-800
- **Description** : Administrator can enter description.

Steps5

Setup internet time rules for package authentication type (DR-3000). Please click menu “**Account**”

➔ “**Package setup**”. As follows

Package Name	(4-32 chars)
Description	(4-64 chars)
Traffic Volume	MB
Session Time	Minutes
Expire After	Minutes
Expiration	Unlimited

- **Package Name**: Administrator can set Identify name for the package rules.
- **Description**: Administrator can set the description for package rules.
- **Traffic Volume**: Administrator can set authentication account use traffic limit for the package rules.
- **Session Time**: Administrator can set authentication account use session limit for the package rules. (After the account is signed in, the system will begin counting until the set time is used up. The counting will stop when users log out, and begin counting again once the user signs back in.)
- **Expire After**: Administrator can set authentication account use how many hours expire.(After the account is signed in, the system start counted time until the end time.)
- **Expiration**: Administrator can select Unlimited or Per Day or Until Time.

Expiration ▼

- Unlimited
- Per Day
- Until Time

- ✓ **Unlimited:** After the account is signed in, the system does not count the time
- ✓ **Per Day:** After the account is signed in, the system start counted time until the end time.
- ✓ **Until Time:** After the account is signed in, the system will begin counting until the set time is used up. The counting will stop when users log out, and begin counting again once the user signs back in.

Account Rule

User Name Length

User Name Type

Digit Letters Mix

No L/I/1 No O/0 No U/V

Password Length

Password Type

Digit Letters Mix

No L/I/1 No O/0 No U/V

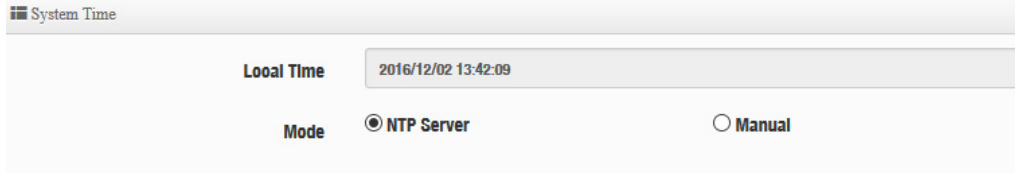
PS. Package list (0~9) is Network control server (SP-800) code, administrator can choose number to print out account.

Package List							Create New Package
#	Name	Description	Session Time	Traffic Volume	Expire After	Expiration	Action
0	TEST-1	no time		0B			Edit ▼
1	test-2	60Mbps Trafflo		60.00MB			Edit ▼
2	test-3	use 120 minutes time	2Hour(s)	0B			Edit ▼
3	Test-4	use 120 minutes expl...		0B	2Hour(s)		Edit ▼

Steps6

The system time is very important, administrator must set system time is right. Please click DR-3000 menu “System” → “Time Server” to set system time.

PS. Recommend select update the system time for the NTP Server



The above procedure will complete the DR-3000 setting

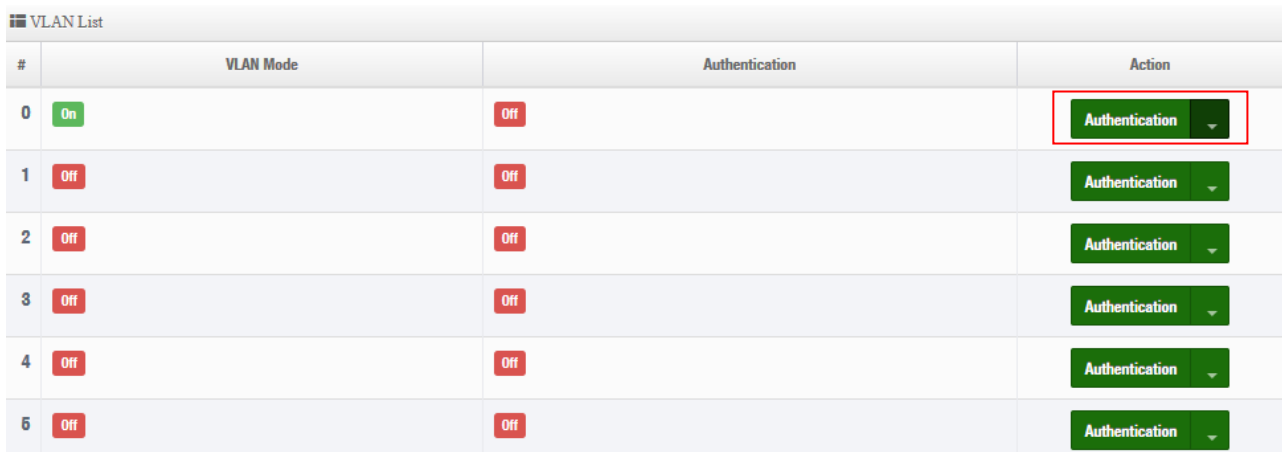
Enable Web authentication for Access Point

Hot spots web authentication architecture must be with combine Cerio's CenOS5.0 access point. As follows

Steps7

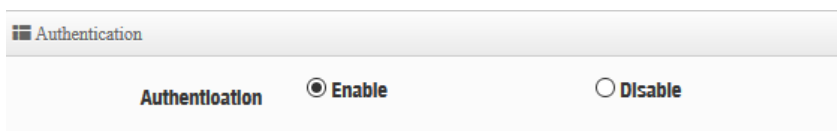
Enable Web authentication for Cerio's CenOS5.0 Access Point. (You can refer user manual for Access Point), As follows for Cerio's Access Point.

1) Enables web authentication function. Please click “System” → “Authentication” for Cerio's Access Point.



#	VLAN Mode	Authentication	Action
0	On	Off	Authentication
1	Off	Off	Authentication
2	Off	Off	Authentication
3	Off	Off	Authentication
4	Off	Off	Authentication
6	Off	Off	Authentication

2) Click Authentication button and enable the function.



3) Enable authentication for RADIUS Server and set IP address for DR-3000.

Radius Setup

Radius **Enable** **Disable**

Display Name Radius User

Primary Server IP 192.168.2.1

Secondary Server IP Options

Authentication Port 1812 **Port**

Accounting Service 1813 **Port**

Authentication Type **PAP** **CHAP**

Secret Key

Steps8

Set system time for Cerio's Access Point. Please click menu "System" → "Time server".

Steps9

The system time is very important, administrator must set system time is right. Please click (Cerio's Access Point) menu "System" → "Time Server" to set system time.

PS. Recommend select update the system time for the NTP Server

System Time

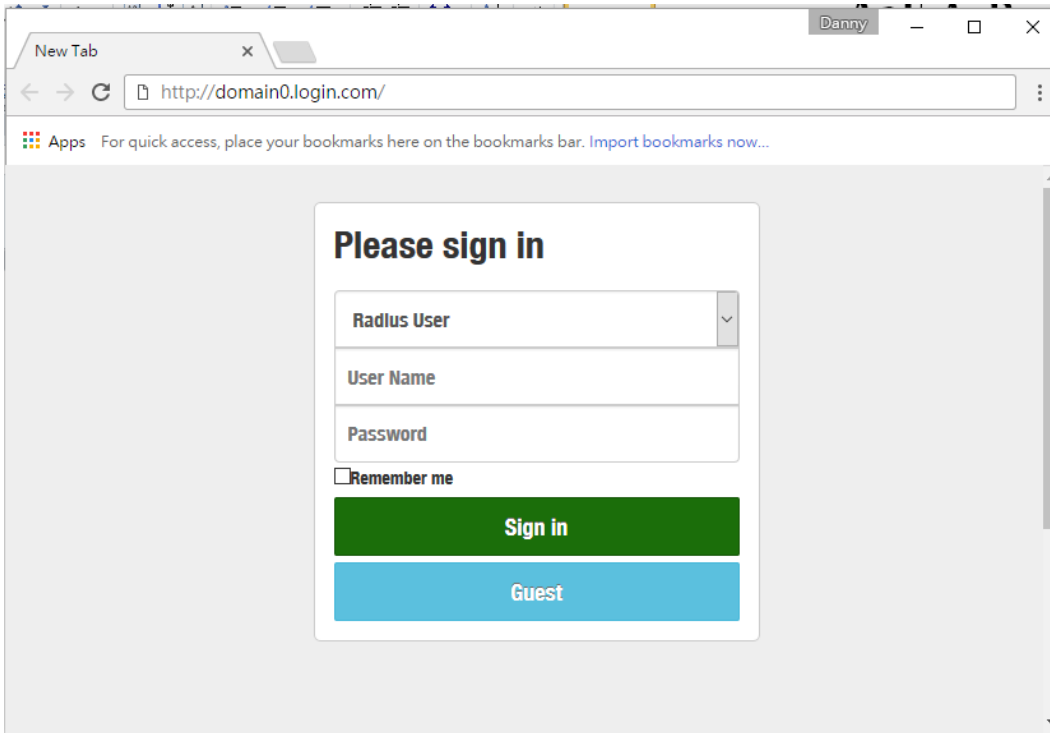
Local Time 2016/12/02 13:42:09

Mode **NTP Server** **Manual**

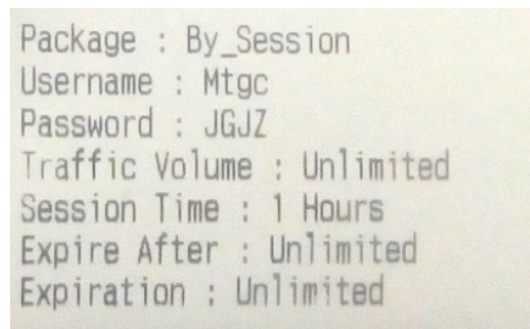
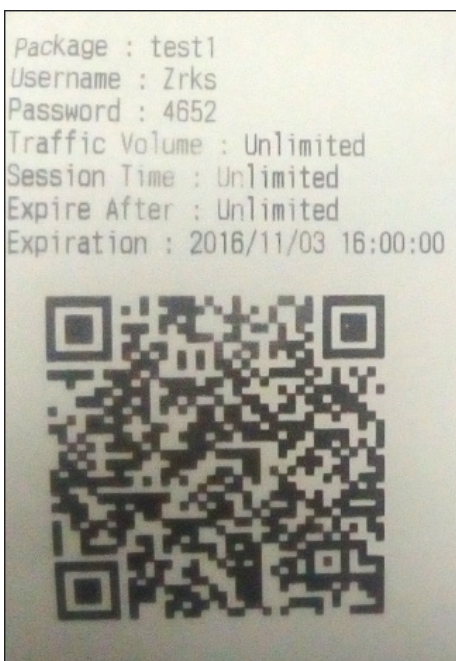
This completes all architecture settings

8. Other function for Access Point

After wireless user connect to Cerio's Access Point and open browser will display authentication page. As follows



Administrator can click SP-800 "Print" button will print account and password of the tickets. As follows



This login page can customize the user Login Page.

