

EKI-7700 Series Managed Switch SNTP Configuration SOP

- LAB 1: NTP Server is in the Same LAN
- LAB 2: NTP Server is on the Internet

| Revision Date | Revision | Description | Author |
|---------------|----------|-----------------|-------------------------------|
| March/2018 | V1.0 | Initial release | ICG AE Eddie.Wei / Raimen Liu |

Abstract

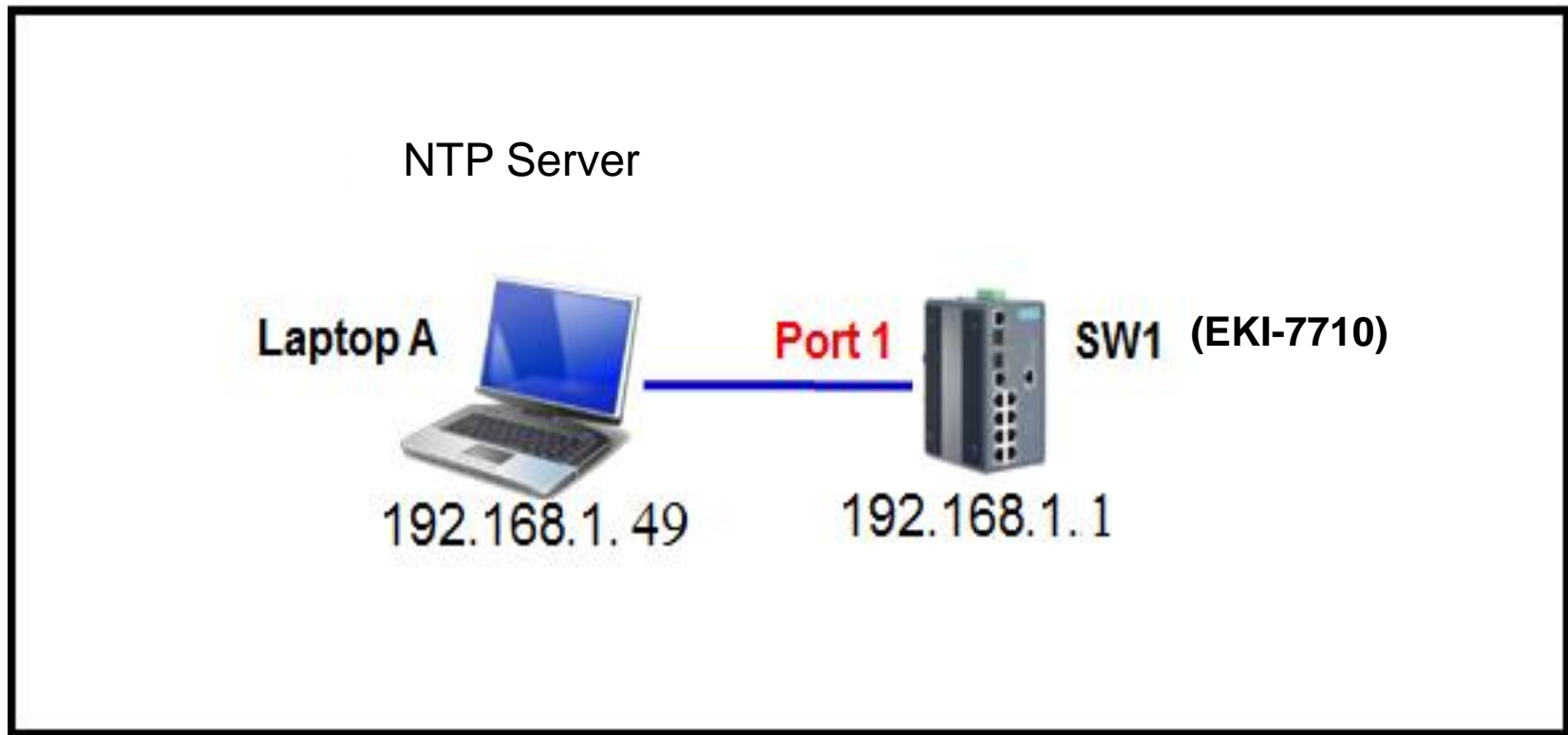
- ❖ **This SOP explains how to configure SNTP on Advantech EKI-7700 series industrial managed switch.**
- ❖ **Related products:**
EKI-7428, EKI-7706, EKI-7708, EKI-7710, EKI-7712, EKI-7716, EKI-7720.
- ❖ **Requirement: Advantech managed switch, RJ45 ethernet cable, PC**
- ❖ **How to select Advantech managed switch console cable:**
http://support.advantech.com/support/KnowledgeBaseSRDetail_New.aspx?SR_ID=1-1IOM96L&Doc_Source=Knowledge+Base



LAB 1: NTP Server is in the Same LAN

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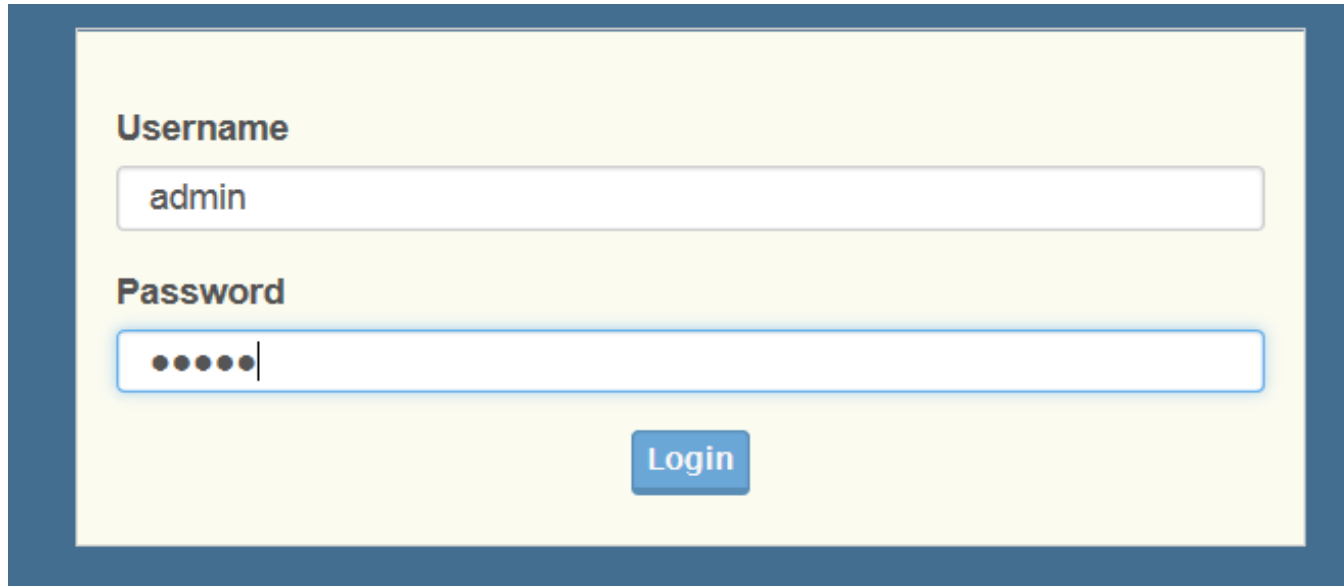
- Topology Diagram: Synchronize time with local device (PC, laptop etc.)



LAB 1: NTP Server is in the Same LAN

■ Setting:

- Step 1: Logging the switch with admin/admin as Username/Password by default.

A login form with a light yellow background and a blue border. It contains two input fields: 'Username' with the text 'admin' and 'Password' with five dots. A blue 'Login' button is at the bottom.

Username

admin

Password

•••••

Login

LAB 1: NTP Server is in the Same LAN

■ Setting:

- Step 2: Under *System -> System Time*, set SNTP as “**Enabled**”, input SNTP/NTP Server Address 192.168.1.49, select “**Time Zone**” and press “**Apply**” button.

The screenshot shows the 'System Time Settings' page. On the left sidebar, 'System Time' is highlighted. In the main content area, the 'Enable SNTP' section has the 'Enabled' radio button selected. The 'SNTP/NTP Server Address' field contains '192.168.1.49'. The 'SNTP Port' field contains '123'. The 'Manual Time' section shows 'Year' as '2000', 'Month' as 'Jan', 'Day' as '1', 'Hour' as '0', 'Minute' as '0', and 'Second' as '0'. The 'Time Zone' dropdown is set to '(GMT+08:00) Taipei'. The 'Daylight Saving Time' dropdown is set to 'Disable', and the 'Daylight Saving Time Offset' field contains '60'. At the bottom, the 'Apply' button is highlighted.

System

- IP Settings
- DHCP Client Option 82
- DHCP Auto Provision
- IPv6 Settings
- Management VLAN
- System Time**
- L2 Switching
- MAC Address Table
- Security
- QoS
- Management

System Time Settings

Enable SNTP ☐ Disabled ☒ Enabled

SNTP/NTP Server Address 192.168.1.49 (X.X.X.X or Hostname)

SNTP Port 123 (1 - 65535 | Default : 123)

Manual Time

Year 2000 Month Jan Day 1

Hour 0 Minute 0 Second 0

Time Zone (GMT+08:00) Taipei

Daylight Saving Time Disable

Daylight Saving Time Offset 60 (1 - 1440) Minutes

Apply

LAB 1: NTP Server is in the Same LAN

■ Result:

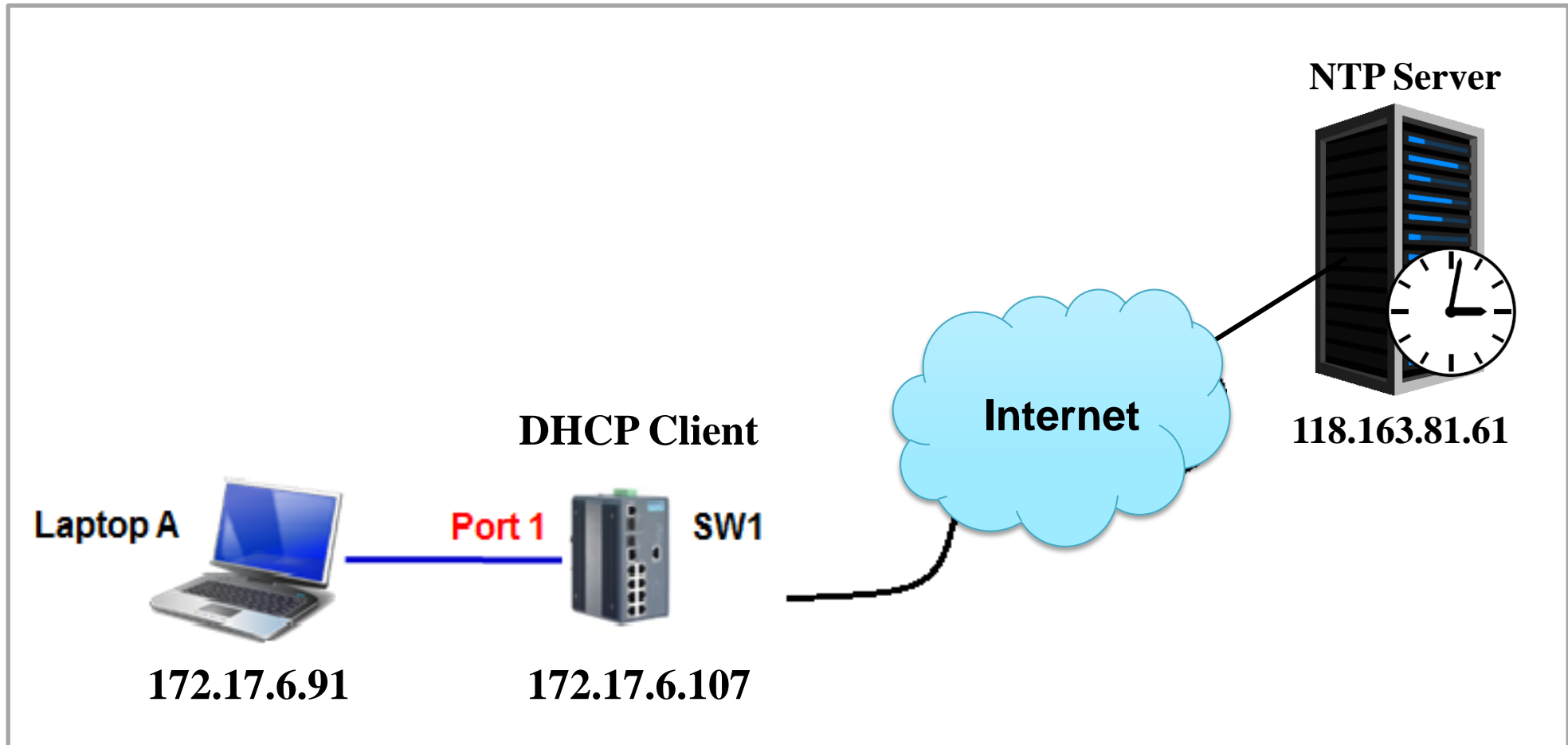
- After setting the SNTP, we should be able to see that the system time of SW(192.168.1.1) is now following the laptop A(192.168.1.49).

| System Time Information | |
|-----------------------------|---------------------------------|
| Information Name | Information Value |
| Current Date/Time | 18:49:47 web(GMT+8) Jan 11 2016 |
| SNTP | Enabled |
| SNTP Server Address | 192.168.1.49 |
| SNTP Server Port | 123 |
| Time zone | GMT+8 |
| Daylight Saving Time | Disabled |
| Daylight Saving Time Offset | |

LAB 2: NTP Server is on the Internet

LAB 2: NTP Server is on the Internet

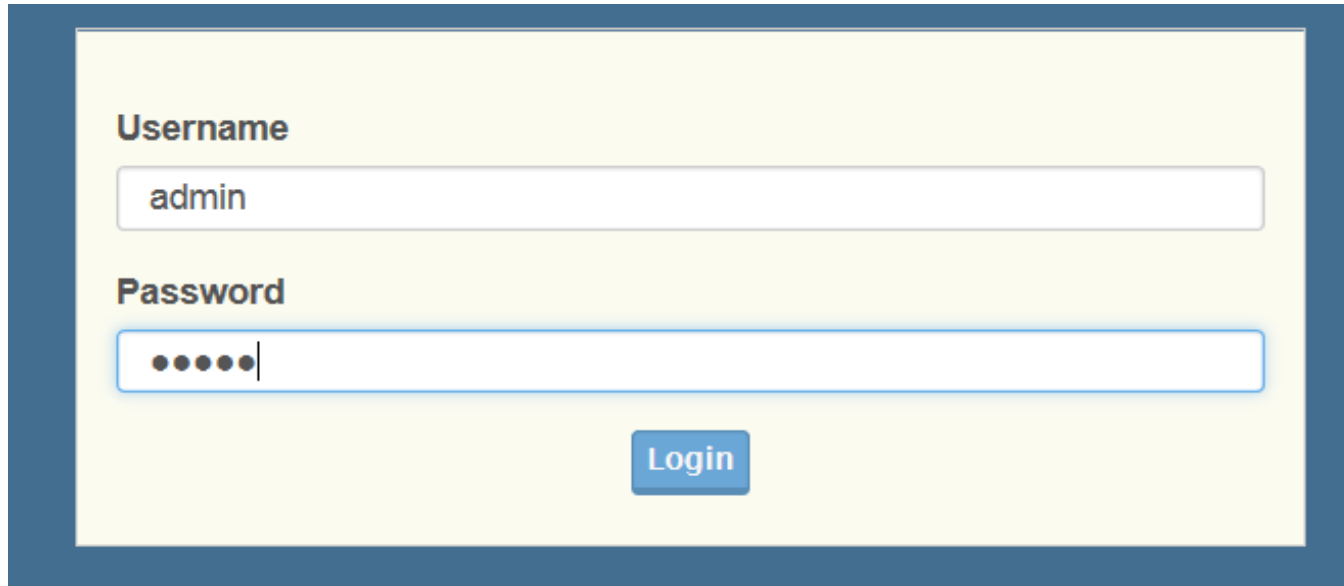
- Topology Diagram: Synchronize time with NTP server on the internet.



LAB 2: NTP Server is on the Internet

■ Setting:

- Step 1: Logging the switch with admin/admin as Username/Password by default.

A login form with a light yellow background and a blue border. It contains two input fields: 'Username' with the text 'admin' and 'Password' with five dots. A blue 'Login' button is at the bottom.

Username

admin

Password

•••••

Login

LAB 2: NTP Server is on the Internet

■ Setting:

- **Switch IP must use DHCP client to access internet.**
- Step 2: Under System -> IP Settings, select “DHCP” and then press “Apply” button. (We can confirm now switch IP address is 172.17.6.107 from console which command is “*switch# show ip*”)

The screenshot displays the configuration interface of a network switch. On the left is a dark blue sidebar menu with the following items: System, IP Settings (highlighted with a red box), DHCP Client Option 82, DHCP Auto Provision, IPv6 Settings, Management VLAN, System Time, L2 Switching, MAC Address Table, Security, QoS, Management, Diagnostics, and Tools. The main content area is divided into two sections. The top section, titled 'IP Address Settings', contains fields for Mode (Static and DHCP, with DHCP selected and highlighted by a red box), IP Address (192.168.1.2), Subnet Mask (255.255.255.0), Gateway (192.168.1.254), DNS Server 1 (168.95.1.1), and DNS Server 2 (168.95.192.1). An 'Apply' button is located at the bottom right of this section and is also highlighted with a red box. The bottom section, titled 'IP Address Information', contains a table with the following data:

| Information Name | Information Value |
|----------------------|-------------------|
| DHCP State | Enabled |
| Current IP Address | 172.17.6.107 |
| Current Subnet Mask | 255.255.254.0 |
| Current Gateway | 172.17.7.254 |
| Current DNS Server 1 | 172.20.1.100 |
| Current DNS Server 2 | 172.20.1.99 |

LAB 2: NTP Server is on the Internet

■ Setting:

- Step 3: Under *System -> System Time*, set SNTP as “**Enabled**”, input SNTP Server Address 118.163.81.61, select “**Time Zone**” and press “**Apply**” button.
- Noted that we also support **hostname**, for example: time.stdtime.gov.tw

The screenshot shows the 'System Time Settings' page. On the left sidebar, 'System Time' is highlighted. The main content area has the following fields:

- Enable SNTP:** Radio buttons for 'Disabled' and 'Enabled'. The 'Enabled' option is selected and highlighted with a red box.
- SNTP/NTP Server Address:** A text input field containing '118.163.81.61', highlighted with a red box. A hint '(X.X.X.X or Hostname)' is shown to the right.
- SNTP Port:** A text input field containing '123'. A hint '(1 - 65535 | Default : 123)' is shown to the right.
- Manual Time:** A section with dropdown menus for Year (2000), Month (Jan), Day (1), Hour (0), Minute (0), and Second (0).
- Time Zone:** A dropdown menu showing '(GMT+08:00) Taipei', highlighted with a red box.
- Daylight Saving Time:** A dropdown menu set to 'Disable'.
- Apply:** A blue button at the bottom center, highlighted with a red box.

LAB 2: NTP Server is on the Internet

■ Result:

- After setting the SNTP, we should be able to see that the system time of SW(192.168.1.1) is now following the NTP server(118.163.81.61).

| System Time Information | |
|-----------------------------|---------------------------------|
| Information Name | Information Value |
| Current Date/Time | 18:25:03 web(GMT+8) Jan 11 2016 |
| SNTP | Enabled |
| SNTP Server Address | 118.163.81.61 |
| SNTP Server Port | 123 |
| Time zone | GMT+8 |
| Daylight Saving Time | Disabled |
| Daylight Saving Time Offset | |



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