



H3C WT Configuration User Guide

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Configuring WTs

Support for the IoT capability depends on the WT model.

This chapter contains basic WT configuration. For information about IoT configuration, see IoT AP configuration in the Internet of Things Configuration Guide.

You can configure 2 × 2 MIMO on WTU420 and WTU420H, but the configuration will not take effect.

About the wireless terminator solution

The wireless terminator solution is a new-generation wireless network structure proposed for the large-scale and intensive deployment of WLANs at a low cost.

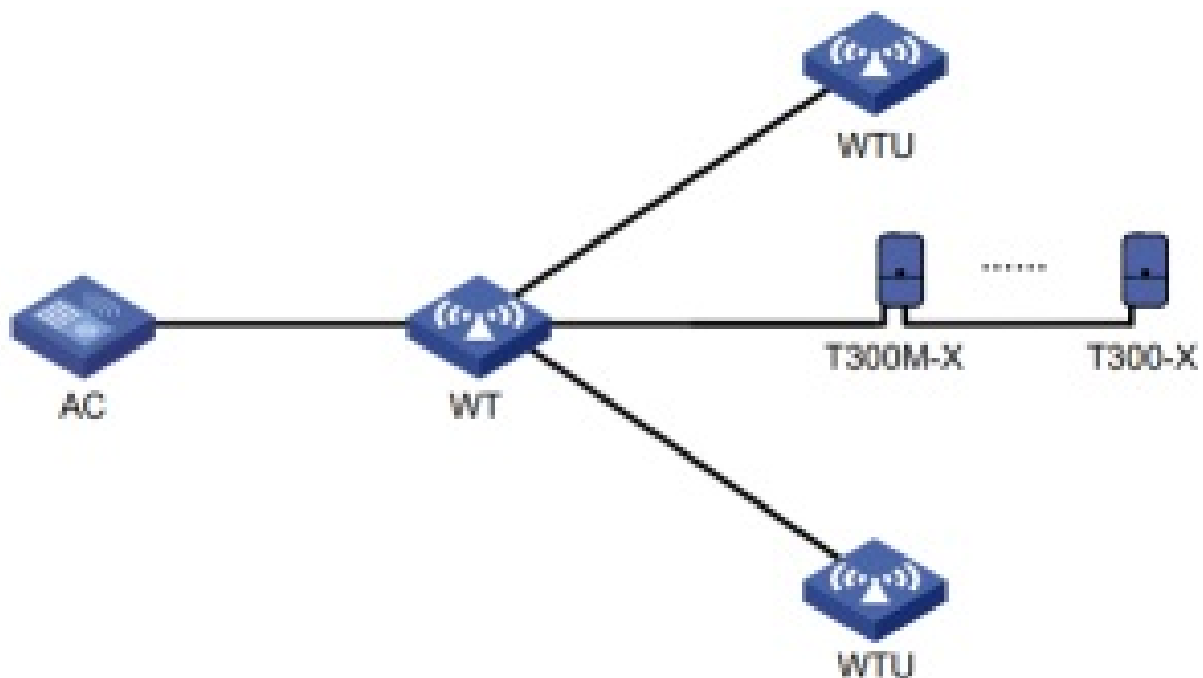
Network topology

Basic networking scheme

As shown in Figure 1, the basic network in a wireless terminator solution includes the following entities:

- **Wireless terminator**—A WT is an AP that associates with the AC on behalf of WTUs and connects to IoT modules through wired cables. It offers a PoE power supply and data forwarding for the WTUs and IoT modules.
- **Wireless terminator unit**—A WTU is an indoor AP that only sends and receives wireless packets. A WTU supports 802.11ac Gigabit wireless access, and it can operate simultaneously in 2.4 GHz and 5 GHz bands.
- **AC**—Manages the WT, the WTUs, and the IoT modules.
- **IoT module**—An IoT module acts as a sensor to connect things to the Internet for intelligent identification, locating, tracking, monitoring, and management of things.

Figure 1 Basic networking scheme of wireless terminator solution



Cascade networking scheme

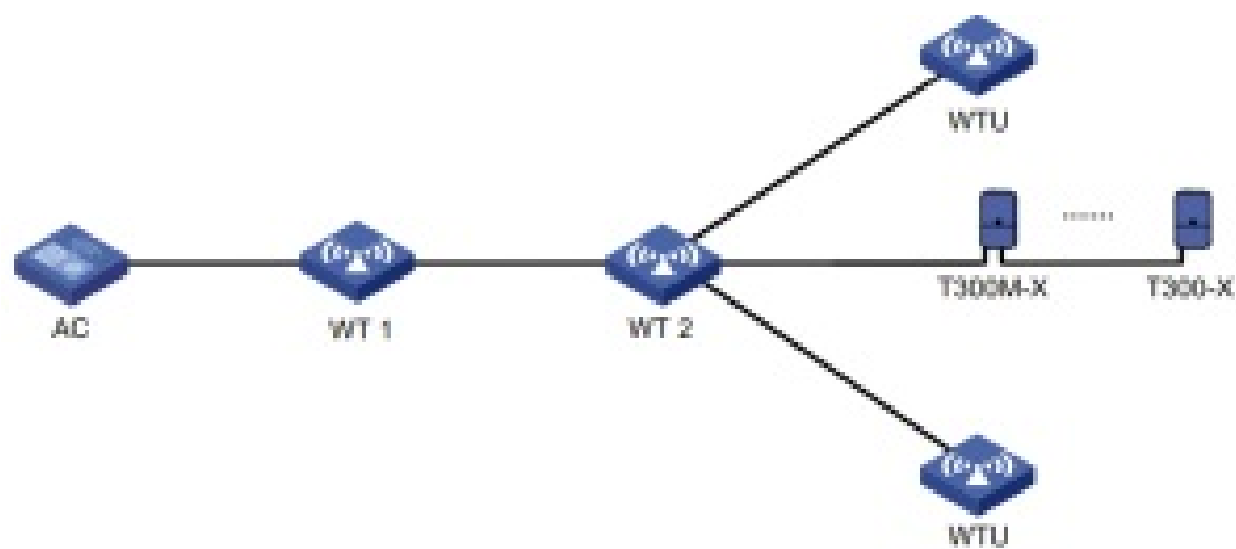
NOTE:

Support for the cascade networking scheme depends on the WT model.

As shown in Figure 2, the cascade network in a wireless terminator solution includes the following entities:

- **Wireless terminator 1**—An AP connected to wireless terminator 2 through wired cables. It offers a PoE power supply and data forwarding for wireless terminator 2.
- **Wireless terminator 2**—An AP that associates with the AC on behalf of WTUs and connects to IoT modules through wired cables. It offers a PoE power supply and data forwarding for the WTUs and IoT modules.
- **Wireless terminator unit**—A WTU is an indoor AP that only sends and receives wireless packets. A WTU supports 802.11ac Gigabit wireless access, and it can operate simultaneously in 2.4 GHz and 5 GHz bands.
- **AC**—Manages the WT, the WTUs, and the IoT modules.
- **IoT module**—An IoT module acts as a sensor to connect things to the Internet for intelligent identification, locating, tracking, monitoring, and management of things.

Figure 2 Cascade networking scheme of wireless terminator solution



Application scenarios and advantages

The wireless terminator solution can be widely applied to scenarios such as dormitories, apartments, hotels, small-sized offices, and medical institutions, and intelligent campuses. This solution has the following advantages over traditional independent or indoor solutions:

- Cost-saving and easy deployment—A WT and WTUs are connected through Ethernet cables instead of dedicated lines. The WT directly supplies power to the WTUs through PoE.
- Strong signal strength—Each room has dedicated bandwidth.
- Enhanced network performance and user experience—WTUs can offer high uplink bandwidth.
- Most up-to-date wireless access technology—WTUs support 802.11ac Gigabit and dual-band access.
- Support for IoT module connection—A WT can connect to IoT modules to provide more services besides wireless services, which is cost-saving and easy to manage.

Restrictions: Hardware compatibility with WT

Hardware series	Model	Product code	WT compatibility
WX1800H series	WX1804H	S EWP-WX18041143WR-CN	No
WX2500H series	WX2508H-PWR-LTE WX 2510H	EWP-WX2508H-PWR-LTE EW P-WX2510H-PWR	Yes

	WX2510H-F WX2540H WX2540H-F WX2930H	EWP-WX2510H-F-FWR EWP-WX2540H EWP-WX2540H-F EWP-WX2580H	
I I	WX3010H WX3010H-X WX3010H-L WX3024H WX3024H-L WX3024H-F	EWP-WX3010H EWP-WX3010H-X-P1NR EWP-WX3010H-L-PWR EWP-WX3024H EWP-WX3024H-L-PWR EWP-WX3024H-F	Yee
WX3SOOH sates	WX3508H WX3510H WX3520H WX3520H-F WX3540H	EWP-WX3508H EWP-WX3510H EWP-WX3520H EWP-WX3520H-F EWP-WX3540H	Yes
WXSSOOE series	WX5510E WX5540E	EWP-WXS510E EWP-WX5540E	Yee
WX5SOOH series	WX5540H WX5580H WX5580H	EWP-WX5540H EWP-WX5560H EWP-WX5580H	Yee
Access controller modules	LSUM1WCME0 EWPXM1WCME0 LSO M1WCMX20 LSUM1W CMX2ORT LSOM1WCI AX40 LSUM1WCIW4O RT EWPXM2WCMDOF EWPXMIMACOF	LSUM1WCME0 EWPXMIWCME0 LSOM1W CMX20 LSUM1WCMX2ORT LSOM 1WCMX40 LSUMIWCX4O RT EWPXM2WCMDOF EW PX1141MACOF	Yes

Hardware series	Model Product code		WT compatibility
WX1800H series	WX1804H WX1810H WX1820H WX11340H	EWP-WX1804H-PWR EWP- WX1810H-FWR EWP-WX18 20H EWP-WX1840H-GL	Ped
WX3800H series	WX3820H WX3840H	EWP-WX3820H-GL EWP-WX3840H-GL	No
WXS800H series	WX58130H	EWP-WX5860H-G.	No

Restrictions and guidelines: WT configuration

You can configure APs by using the following methods:

- Configure APs one by one in AP view.
- Assign APs to an AP group and configure the AP group in the AP group view.
- Configure all APs in the global configuration view.

For an AP, the settings made in these views for the same parameter take effect in descending order of AP view, AP group view, and global configuration view.

WT tasks at a glance

To configure a WT, perform the following tasks:

- Configuring PoE for a WTU port
- Specifying the WT version
- Enabling port type switching

Configuring PoE for a WTU port

About this task

A WT uses WTU ports to supply power to its connected WTUs through PoE. For a WTU to operate correctly, make sure PoE is enabled for the WTU port that connects the WT to the WTU.

Procedure

1. Enter system view.

system-view

2. Enter AP view or an AP group's AP model view.

•**Enter AP view.** WLAN ap ap-name

•Execute the following commands in sequence to enter an AP group's AP model view:

WLAN ap-group group-name ap-model ap-model

The AP must be a WT.

3. Configure PoE for a WTU port.

Poe was-port port-number1 [to port-number2] { disable | enable }By default:

- In the AP view, an AP uses the configuration in an AP group's AP model view.
- In an AP group's AP model view, PoE is enabled for a WTU port.

Specifying the WT version

NOTE:

Support for this feature depends on the WT model.

Restrictions and guidelines

If the specified WT version is different from the WT version in use, the WT will restart automatically.

Then, it will switch to the specified WT version and restore the factory settings.

This command does not take effect on WTs that support different types of WTUs.

Procedure

1. Enter system view.

system-view

2. Enter AP view or an AP group's AP model view.

- Enter AP view.

WLAN ap ap-name

- Execute the following commands in sequence to enter an AP group's AP model view:

WLAN ap-group group-name ap-model ap-model

The AP must be a WT.

3. Specify the WT version.

wt version { 1 | 2 | 3 }

By default:

- In the AP view, an AP uses the configuration in an AP group's AP model view.
- In an AP group's AP model view, the WT version varies by AP model.

Enabling port type switching

About this task

You can switch an Ethernet port on a WT to a WTU port to increase the number of WTU ports or switch a WTU port to an Ethernet port.

If a port has a mark of two different port names separated by a slash (/), G3/WTU26 for example, the port supports port type switching

Restrictions and guidelines



CAUTION:

To prevent the chips on the connection from being damaged because of PoE power supply capacity change, make sure the port to switch is not connected to any other device.

This command will reboot the WT and the new port will use its default settings.

Procedure

1. Enter system view.

system-view

2. Enter AP view or an AP group's AP model view.

- Enter AP view.

WLAN ap ap-name

- Execute the following commands in sequence to enter an AP group's AP model view:

WLAN ap-group group-name

ap-model ap-model

The AP must be a WT.

3. Enable port type switching between an Ethernet port and a WTU port.

port-type switch number port-number-list { gigabit ethernet | with }

By default:

- In the AP view, an AP uses the configuration in an AP group's AP model view.
- In an AP group's AP model view, the default setting varies by WT model.

Support for this command depends on the WT model.

Display and maintenance commands for WTs

The AP models and serial numbers in this document are used only as examples. Support for AP models and

serial numbers depends on the AC model.
Execute display commands in any view.

Task	Command
Display WT information and information about the WTUs connected to it.	display WLAN wt { all name wt-name }

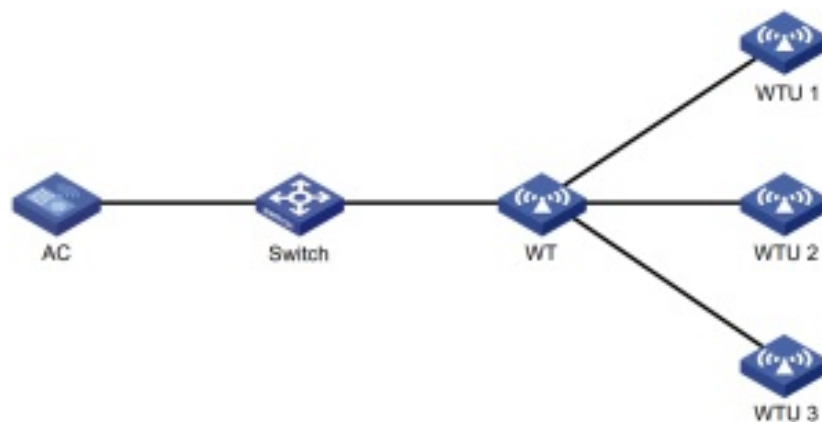
WT configuration examples

Example: Configuring the basic wireless terminator solution

Network configuration

As shown in Figure 3, construct a wireless network by using the wireless terminator solution. WTUs WTU 1, WTU 2, WTU 3 are connected to WTU ports 1, 2, and 3 on the WT, respectively.

Figure 3 Network diagram



Procedure

Create a WT named wt, and specify its model and serial ID.

```
<AC> system-view
[AC] wlan ap wt model WT1020
[AC-wlan-ap-wt] serial-id 219801A0SS9156G00072
[AC-wlan-ap-wt] quit
```

Create a WTU named wtu1, and specify its model and serial ID.

```
[AC] wlan ap wtu1 model WTU430
[AC-wlan-ap-wtu1] serial-id 219801A0SS9156G00185
[AC-wlan-ap-wtu1] quit
```

Create a WTU named wtu2, and specify its model and serial ID.

```
[AC] wlan ap wtu2 model WTU430
[AC-wlan-ap-wtu2] serial-id 219801A0SS9156G00133
[AC-wlan-ap-wtu2] quit
```

Create a WTU named wtu3, and specify its model and serial ID.

```
[AC] wlan ap wtu3 model WTU430
[AC-wlan-ap-wtu3] serial-id 219801A0SS9156G00054
[AC-wlan-ap-wtu3] quit
```

Verifying the configuration

Verify that the WT and WTUs have come online.

```
<AC> display WLAN wt all
WT name: wt
Model: WT1020
Serial ID : 219801A0SS9156G00072
MAC address : 0000-f3ea-0a3e
```

WTU number : 3
Wireless Terminator Unit:

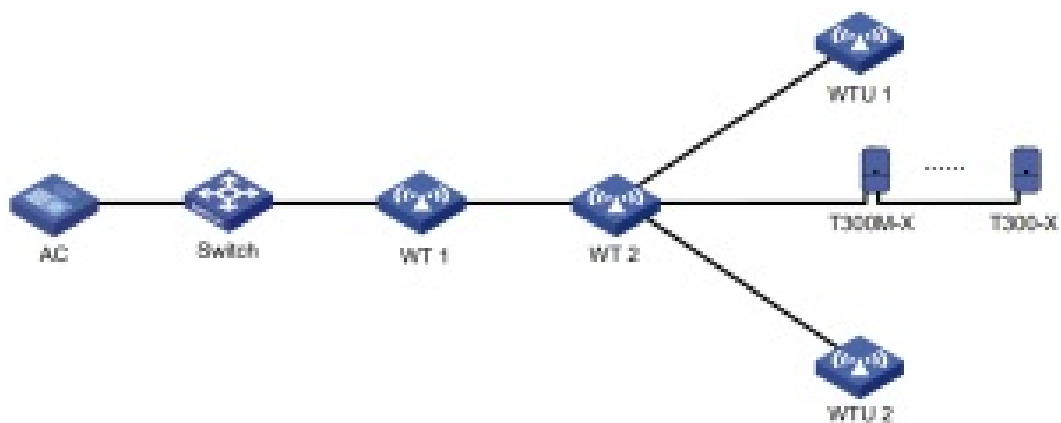
WTU name	Port	Model	Serial ID
wtu1	1	WTU430	219801A0SS9156G00185
wtu2	2	WTU430	219801A0SS9156G00133
wtu3	3	WTU430	219801A0SS9156G00054

Example: Configuring the wireless terminator solution by using the cascade networking scheme

Network configuration

As shown in Figure 4, construct a wireless network by using the cascade networking scheme. WT 1 is connected to the AC through the switch, and WT 2 is connected to the WTU port of WT 1. WTU 1, WTU 2, and IoT module T300M-X are connected to the WTU ports on WT 2.

Figure 4 Network diagram



Procedure

Create a WT named wt1, and specify its model and serial ID.

```
<AC> system-view
[AC] wlan ap wt1 model WT2024-U
[AC-wlan-ap-wt1] serial-id 219801A11WC17C000021
[AC-wlan-ap-wt1] quit
```

Create a WT named wt2, and specify its model and serial ID.

```
[AC] wlan ap wt2 model WT1010-QU
[AC-wlan-ap-wt2] serial-id 219801A11VC17C000007
[AC-wlan-ap-wt2] quit
```

Create a WTU named wtu1, and specify its model and serial ID.

```
[AC] wlan ap wtu1 model WTU430
[AC-wlan-ap-wtu1] serial-id 219801A0SS9156G00185
[AC-wlan-ap-wtu1] quit
```

Create a WTU named wtu2, and specify its model and serial ID.

```
[AC] wlan ap wtu2 model WTU430
[AC-wlan-ap-wtu2] serial-id 219801A0SS9156G00133
[AC-wlan-ap-wtu2] quit
```

Specify the serial number and type of IoT module T300M-X, and enable the IoT module.

```
[AC] wlan ap wt2
[AC-wlan-ap-wt2] module 1
[AC-wlan-ap-wt2-module-1] serial-number 219801A19A8171E00008
[AC-wlan-ap-wt2-module-1] type ble
```


[AC-wlan-ap-wt2-module-1] module enable

[AC-wlan-ap-wt2-module-1] quit

[AC-wlan-ap-wt2]

Configure T300-X in the same way T300M-X is configured. (Details not shown.)

Verifying the configuration

Display information about all APs on the AC.

<AC> display wlan ap all

Total number of APs: 4

Total number of connected APs: 4

Total number of connected manual APs: 4

Total number of connected auto APs: 0

Total number of connected common APs: 0

Total number of connected WTUs: 2

Total number of inside APs: 0

Maximum supported APs: 64

Remaining APs: 60

Total AP licenses: 128

Local AP licenses: 128

Server AP licenses: 0

Remaining local AP licenses: 127.5

Sync AP licenses: 0

AP information

State : I = Idle, J = Join, JA = JoinAck, IL = ImageLoad C = Config, DC = DataCheck, R = Run, M = Master, B = Backup.

AP name	APID	State	Model	Serial ID
wt1	1	R/M	WT2024-U	219801A11WC17C000021
wt2	2	R/M	WT1010-QU	219801A11VC17C000007
wtu1	3	R/M	WTU430	219801A0SS9156G00185
wtu2	4	R/M	WTU430	219801A0SS9156G00133

Verify that the WTs and WTUs have come online.

<AC> display wlan wt all

WT name : wt2 Model : WT1010-QU

Serial ID : 219801A11VC17C000007 MAC address : e8f7-24cf-4550

WTU number : 2

Wireless Terminator Unit:

WTU name	Port	Model	Serial ID
wtu1	1	WTU430	219801A0SS9156G00185
wtu2	2	WTU430	219801A0SS9156G00133

Display information about all IoT modules.

<AC> display iot module all

AP name : wt2

AP model : WT1010-QU
Serial ID : 219801A11VC17C000007 MAC address : e8f7-24cf-4550
Modules : 3
Port ID: 5

ModuleID	Model	SerialNumber	H/W Ver	S/W Ver
1	T300M-X	219801A19A8171E00008	Ver.A	E1109
2	T300-X	T3001234567898765432	Ver.A	E1109
3	T300-X	T3001234567898765434	Ver.A	E1109

Display information about IoT module 1 connected to WT 2.

<AC> display wlan module-information ap wt2 module 1

Module administrative type : BLE

Module physical type : H3C

Model : T300-B

HW version : Ver.A

SW version : E1109 V100R001B01D035

Serial ID : 219801A19C816C000012

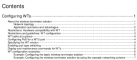
Module MAC : d461-fefc-fff2

Module physical status : Normal

Module administrative status : Enabled

Description : Not configured

Documents / Resources

	H3C WT Configuration [pdf] User Guide WT, Configuration, H3C
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