



Yealink Meeting Server Network Deployment Guide

Version 21.0.0.10
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About This Guide

This guide introduces how to deploy and configure YMS.

The deployment structure of YMS includes standard version and enterprise version, also called the stand-alone deployment and the cluster deployment.

In This Guide

This guide contains the following chapters:

- [Stand-Alone Deployment](#) on page 1
- [Cluster Deployment](#) on page 23

Summary of Changes

Changes for Release 20, Guide Version 20.0.0.5

The following section are new for this version:

- [Cluster Deployment](#) on page 23

Major updates have occurred to the following sections:

- [Scenario 1: A Single Network Adapter in the Internal Network](#) on page 1
- [Scenario 2: A Single Network Adapter in the External Network](#) on page 3
- [Scenario 3: A Single Network Adapter and Static NAT](#) on page 5
- [Scenario 4: Dual Network Adapters in the Internal Network and the External Network](#) on page 12
- [Scenario 5: Dual Network Adapters and Static NAT](#) on page 16

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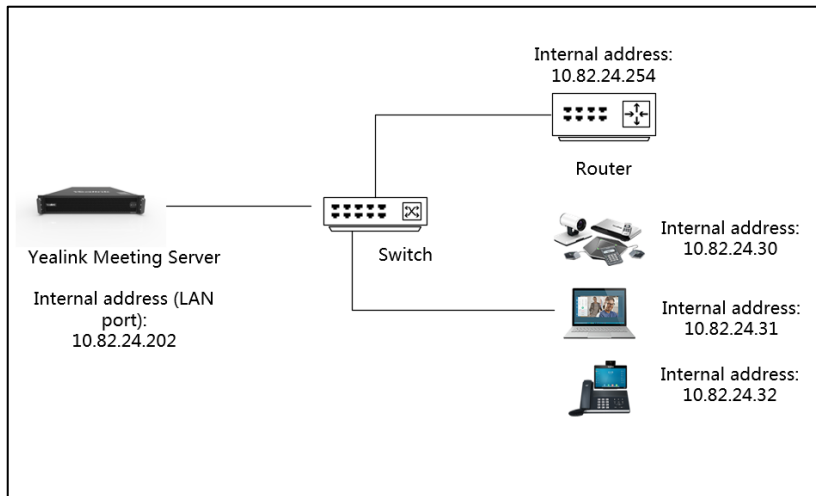
Stand-Alone Deployment

Scenario 1: A Single Network Adapter in the Internal Network


Setting the Network

If you register YMS accounts, place point-to-point calls or join video conferences only in the internal network, you can deploy YMS by this method.

You just need configure the internal network adapter on YMS to finish the deployment.



Procedure:

1. Log into YMS, and click **System Setting->Node Management**.
2. Click  and the server will identify the IP address of the internal network adapter by default, and then configure the network parameter to ensure the network connectivity.

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted, if they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.
Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.
3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example, when the device accessing the contact or downloading the firmware, you can set the service URL for the internal network, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting**->**Common Setting**->**Network Association**.
2. In the WEB service address field, click **Add service address**.
3. In the Service network field, select **Internal network**.
4. In the **Service URL** field, enter the URL.

The screenshot shows the 'WEB service address' configuration section. At the top, the 'Primary domain' is set to '10.82.24.202.xip.io'. Below this, the 'WEB service address' section contains a 'Service network' dropdown menu set to 'Internal network' and a 'Service URL' text field containing 'http://10.82.24.202'. There are 'X' icons to clear the dropdown and text field, and a blue 'X' icon to add the service address.

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Setting the Registration Service

Procedure:

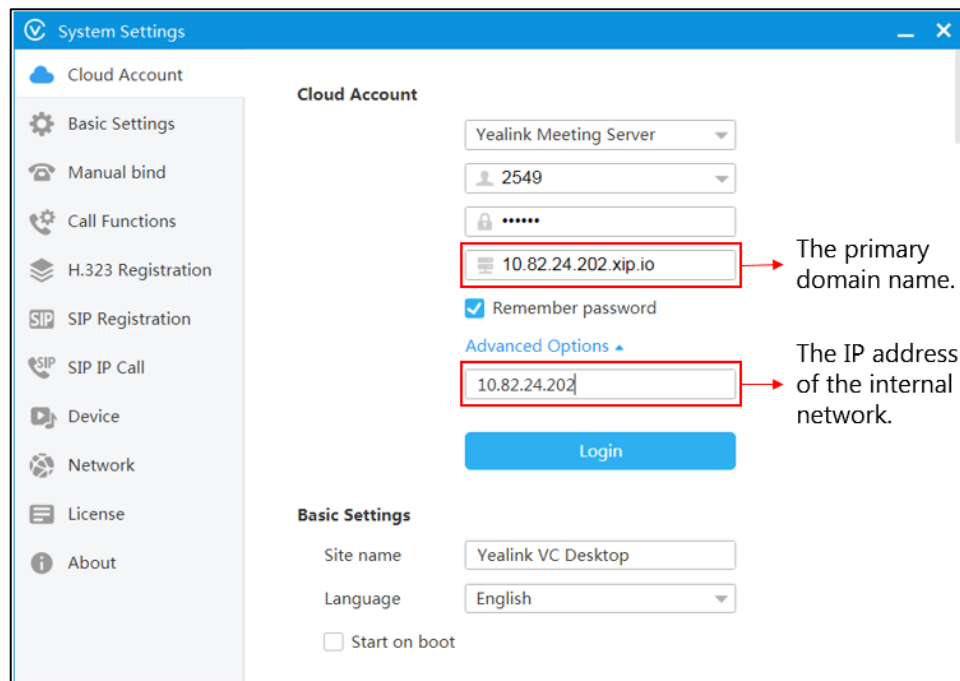
1. Log into YMS, and click **Service**->**SIP Service**->**Registration Service**->**Add**.
2. Configure the registration service for the internal network.

The screenshot shows the 'Registration Service' configuration interface. At the top, the 'Enabled' toggle is set to 'ON'. Below this, the '* Name' field is set to 'internal registration'. The '* Node' dropdown is set to 'Default(10.82.24.202)'. The 'Service address' section contains a table with two columns: '*Network' and '*TLS Port'. The '*Network' field is set to '10.82.24.202' and the '*TLS Port' field is set to '5061'. There is a '+ Add' button and a blue 'X' icon to clear the fields.

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Registering an Account on the Device

The users in the internal network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

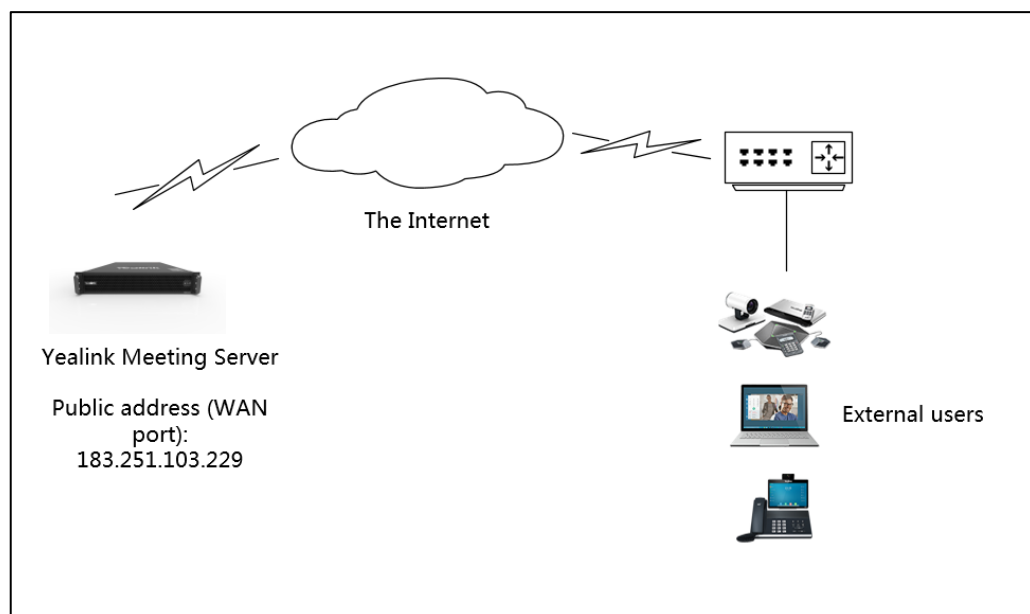


Scenario 2: A Single Network Adapter in the External Network


Setting the Network

If you register YMS accounts, place point-to-point calls or join video conferences only in the Internet, you can deploy YMS by this method.

You just need configure the external network adapter on YMS to finish the deployment.



Procedure:

1. Log into YMS, and click **System Setting->Node Management**.
2. Click  on the right side of the default node, and the server will identify the IP address of the external network adapter by default, and then configure the network parameter to ensure the network connectivity.

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted, if they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

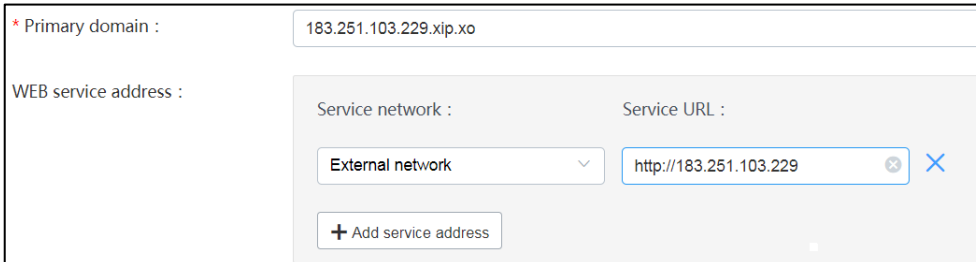
1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.
Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.
3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example, when the device accessing the contact or downloading the firmware, you can set the service URL for the external network, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. In the **WEB service address** field, click **Add service address**.
3. In the **Service network** field, select **External network**.
4. In the **Service URL** field, enter the URL.



* Primary domain : 183.251.103.229.xip.xo

WEB service address :

Service network : External network

Service URL : http://183.251.103.229

+ Add service address

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Setting the Registration Service

Procedure:

1. Log into YMS, and click **Service->SIP Service->Registration Service->Add**.
2. Configure the registration service for the external network.

The screenshot shows the 'Registration Service' configuration window. At the top, there is a toggle switch for 'Enabled' which is set to 'ON'. Below this, there are two required fields: '* Name' with the value 'External registration' and '* Node' with a dropdown menu showing 'Default(10.86.0.201)'. Under the 'Service address' section, there are two more required fields: '* Network' with a dropdown menu showing '183.251.103.229' and '* TLS Port' with a text input showing '5061'. There is an '+ Add' button below the network field and a blue 'X' icon next to the TLS port field.

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Registering an Account on the Device

The users in external network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot shows the 'System Settings' window of the Yealink VC Desktop application. On the left is a sidebar with various settings categories. The 'Cloud Account' section is selected, showing a list of settings. The 'Cloud Account' section includes a dropdown for 'Yealink Meeting Server', a dropdown for '2549', a password field, and a text input for the domain name '183.251.103.229.xip.io'. A red box highlights the domain name field, with an arrow pointing to it and the text 'The primary domain name.' Below the domain name field is a checkbox for 'Remember password' which is checked. There is an 'Advanced Options' link. Below that, another red box highlights the text input '183.251.103.229', with an arrow pointing to it and the text 'The IP address of the external network.' At the bottom of the 'Cloud Account' section is a blue 'Login' button. Below the 'Cloud Account' section is the 'Basic Settings' section, which includes 'Site name' (Yealink VC Desktop), 'Language' (English), and a checkbox for 'Start on boot' which is unchecked.

Scenario 3: A Single Network Adapter and Static NAT

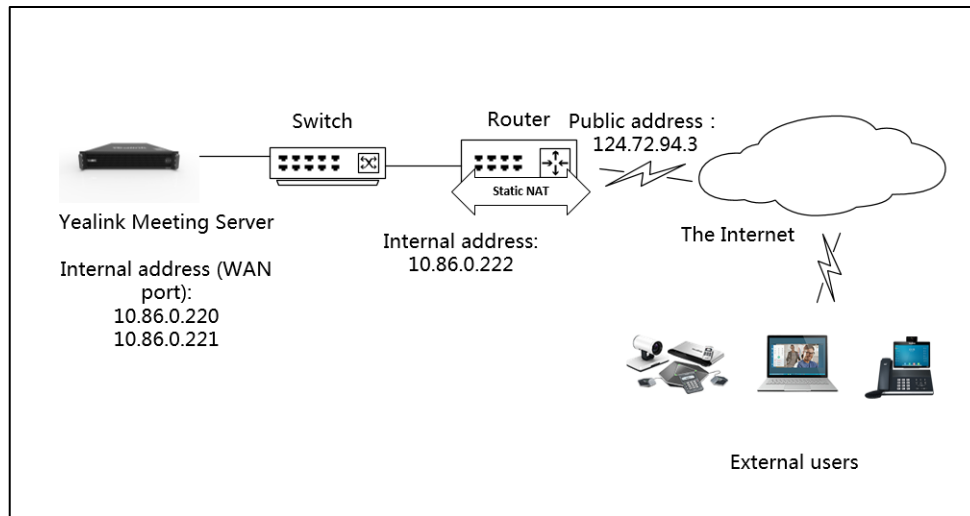
Port Requirements

If the following ports are restricted in your network, you need open these ports. If YMS is deployed in an intranet, you should map the following ports to the Internet to realize the interconnection between the private and the Internet.

Module	Port	UDP/TCP	Description
Web port	443	TCP	HTTPS port
	444	TCP	YMS can be trusted by the Yealink devices even if the web HTTPS certificate is replaced by YMS.
	80	TCP	HTTP port
Rsyslog log service port	514	UDP/TCP	YMS server can collect the device log via this port.
H.323port	1719	UDP/TCP	The RAS listener port of the gatekeeper.
	1720	UDP/TCP	The H.225 listener port of the gateway.
	1722	UDP/TCP	The H.225 listener port of the gatekeeper.
Turnserver port	3478	UDP/TCP	The listener port of the traversal service.
	3479	UDP/TCP	The backup listener port.
	9688	UDP/TCP	This port, which has impact on the traversal service, should be mapped as long as there is IP mapping.
SIP port	5060	UDP/TCP	It is used for the IP call service.
	5061	UDP/TCP	It is used for the registration service.
	5062-5070	UDP/TCP	It is used for the third-party service, the PSTN gateway service, the peer trunk service, REG trunk service, and Skype for Business service.
Media port	10000-65535	UDP/TCP	It is used for the MCU service, IVR, BFCP/FECC, the conference stack signaling, the conference stack media, and the traversal service (UDP is compulsory but TCP is optional).


Setting the Network

To ensure the YMS security and maintain the internal network, you can deploy YMS in the internal network and map the address by static NAT through the router and YMS, so that users in external network can access YMS.



For example, a YMS in the internal network with the IP address 10.86.0.220 and the domain name 10.86.0.220.xip.io, after static NAT mapping, its IP address and domain name are 124.72.94.3 and yms220.yealink.com respectively. Therefore, the mapped IP address and domain name can be used by the user for access and registration. In order to make the user in the internal network can register accounts, we need configure another IP address on the internal network, that is IP address 10.86.0.221. Note that YMS is allowed to configure multiple IP addresses on one network adapter.

Procedure:

1. Log into YMS, and click **System Setting**->**Node Management**.
2. Click  on the right side of the default node, and configure the network parameter to ensure the network connectivity.
3. Click **Add** and configure the second IP address for this network adapter.

The screenshot shows the 'AddNetwork' dialog box. It has a title bar with 'AddNetwork' and a close button. The 'Enabled' toggle is turned ON. The 'Public IP' toggle is turned OFF. The 'Name' field is set to 10.86.0.221. The 'IP address' field is set to 10.86.0.221. The 'Subnet mask' field is set to 255.255.255.0. There are 'Save' and 'Cancel' buttons at the bottom.

4. Click **Save**.

5. Select the corresponding IP address, and enable **Public IP** to allow the access and registration for the user in the external network.

Edit Node

Enabled : ☒

* Node name :

Network and Routing Configuration

ens32 ☒ Enabled Network status : Connected

Selected 0

<input type="checkbox"/>	Name	IP Address	Subnet Mask	Public IP	Enabled	Operation
<input type="checkbox"/>	10.86.0.220	10.86.0.220	255.255.255.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/>

6. Click **Save**.

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; when the adapter has multiple IP addresses, **the routing of all the IP addresses should be specified, the default one cannot be used**; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted. If they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.
Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.
3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example, when the device accessing the contact or downloading the firmware, you can set the service URL for the internal and external network separately, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. In the **WEB service address** field, click **Add service address**.
3. In the **Service network** field, select **Internal/External network**.

4. In the **Service URL** field, enter the URL.

The screenshot shows a configuration form for 'WEB service address'. At the top, there is a field for '* Primary domain :' with the value '10.86.0.220.xip.io'. Below this, the 'WEB service address :' section contains two columns: 'Service network :' and 'Service URL :'. Under 'Service network :', there are two dropdown menus: 'Internal network' and 'External network'. Under 'Service URL :', there are two text input fields: 'http://10.86.0.221' and 'http://yms20.yealink.com'. Each input field has a blue 'X' icon to its right. At the bottom of the 'Service network :' column, there is a '+ Add service address' button.

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Setting the Registration Service

You can configure the registration service to allow the user in the internal and external network to register a YMS account.

Procedure:

1. Log into YMS, and click **Service->SIP Service->Registration Service->Add**.
2. Configure the registration service for the internal network.

The screenshot shows the 'Add' configuration form for the Registration Service. It has a title bar 'Add'. Below it, there is a toggle switch for 'Enabled :' set to 'ON'. Then, there are two fields: '* Name :' with the value 'Internal registration' and '* Node :' with the value '10.86.0.220-stand-alone'. Below these is the 'Service address' section, which contains two columns: '*Network' and '*TLS Port'. Under '*Network', there is a dropdown menu with the value '10.86.0.221' and a '+ Add' button below it. Under '*TLS Port', there is a text input field with the value '5061' and a blue 'X' icon to its right. At the bottom of the form, there is a toggle switch for 'Enable security policy' set to 'OFF'.

3. Click **Save**.
4. Operate according to prompts and click **OK**.

- Repeat the steps from 1 to 4 to configure the registration service for the external network.

Add

Enabled :

ON

* Name :

Internal registration

* Node :

10.86.0.220-stand-alone

Service address

*Network

10.86.0.220

*TLS Port

5061

+ Add

Enable security policy

OFF

After the configuration, the page is shown as below:

Registration Service					
<div> <div>Search</div> <div>+ Add</div> </div>					
<div> <div>Selected 0</div> <div>Delete</div> </div>					
<input type="checkbox"/>	Name	Node	Network(IP : Port)	Enabled	Operation
<input type="checkbox"/>	External registration	10.86.0.220-stand-alone	10.86.0.220(10.86.0.220)/5061	ON	
<input type="checkbox"/>	Internal registration	10.86.0.220-stand-alone	10.86.0.221(10.86.0.221)/5061	ON	

Configuring the Address Port Mapping

When configuring the registration service for the external network, the port 5060 and 5061 of 10.86.0.220 are mapped to the port 5060 and 5061 of 124.72.94.3, therefore, you need add address port mapping on YMS.

Procedure:

- Log into YMS, and click **System Setting->Address Port Mapping->Add**.
- Configure the address port mapping.

* Enable :

OFF

* Name :

address port mapping-1

* Public IP :

124.72.94.3

* Public Port :

5060

~

5061

* Internal IP :

10.86.0.220

* Internal Port :

5060

~

5061

- Click **Save**.
- Operate according to prompts and click **OK**.

Registering an Account on the Device

The users in the internal network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot shows the 'System Settings' window with the 'Cloud Account' tab selected. The 'Cloud Account' section contains the following fields and options:

- Yealink Meeting Server (dropdown)
- 2549 (dropdown)
- ***** (password field)
- 10.86.0.220.xip.io (text field, highlighted with a red box and labeled 'The primary domain name.')
- ☒ Remember password
- Advanced Options (dropdown)
- 10.86.0.221 (text field, highlighted with a red box and labeled 'The IP address of the internal network.')
- Login (button)

The 'Basic Settings' section contains the following fields and options:

- Site name: Yealink VC Desktop
- Language: English (dropdown)
- ☐ Start on boot

The users in external network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot shows the 'System Settings' window with the 'Cloud Account' tab selected. The 'Cloud Account' section contains the following fields and options:

- Yealink Meeting Server (dropdown)
- 2549 (dropdown)
- ***** (password field)
- 10.86.0.220.xip.io (text field, highlighted with a red box and labeled 'The primary domain name.')
- ☒ Remember password
- Advanced Options (dropdown)
- 124.72.94.3 (text field, highlighted with a red box and labeled 'The NAT IP address of the external network.')
- Login (button)

The 'Basic Settings' section contains the following fields and options:

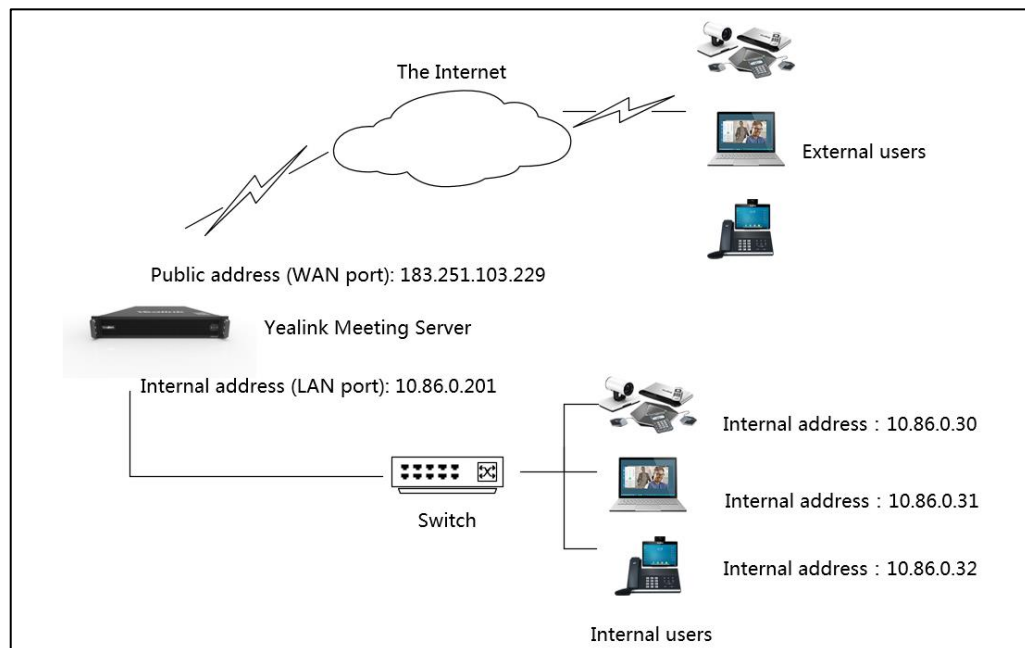
- Site name: Yealink VC Desktop
- Language: English (dropdown)
- ☐ Start on boot

Scenario 4: Dual Network Adapters in the Internal Network and the External Network


Setting the Network

If you register YMS accounts, place point-to-point calls or join video conferences in both the internal network and the Internet, you can deploy YMS by this method.

You need configure the internal and external network adapter on YMS to finish the deployment.



Procedure:

1. Log into YMS, and click **System Setting->Node Management**.
2. Click  and the server will identify the IP addresses of the internal and external network adapters by default, and then configure the network parameter to ensure the network connectivity.
3. Select the desired adapter, and enable **Public IP**.
4. Click **Save**.

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted. If they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.
Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.
3. Click **Save**.

4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example, when the device accessing the contact or downloading the firmware, you can set the service URL for the internal and external network separately, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. In the **WEB service address** field, click **Add service address**.
3. In the **Service network** field, select **Internal/External network**.
4. In the **Service URL** field, enter the URL.

* Primary domain : 10.86.0.201.xip.io

WEB service address :

Service network :	Service URL :
Internal network	http://10.86.0.201/
External network	http://183.251.103.229

+ Add service address

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Setting the Registration Service

You can configure the registration service to allow the user in both the internal and external network to register a YMS account.

Procedure:

1. Log into YMS, and click **Service->SIP Service->Registration Service->Add**.
2. Configure the registration service for the internal network.

Add

Enabled : ☒

* Name : Internal registration

* Node : Default(10.86.0.201)

Service address

*Network	*TLS Port
10.86.0.221	5061

+ Add

Enable security policy ☐

3. Click **Save**.
4. Operate according to prompts and click **OK**.

- Repeat the steps from 1 to 4 to configure the registration service for the external network.

Add

Enabled :

ON

* Name :

External registration

* Node :

Default(10.86.0.201)

Service address

*Network

183.251.103.229

*TLS Port

5061

+ Add

Enable security policy

OFF

After the configuration, the page is shown as below:

Registration Service						+ Add
Search						
Selected 0 Delete						
<input type="checkbox"/>	Name	Node	Network(IP : Port)	Enabled	Operation	
<input type="checkbox"/>	External registration	Default(10.86.0.201)	183.251.103.229(183.251.103.229)/5061	ON		
<input type="checkbox"/>	Internal registration	Default(10.86.0.201)	10.86.0.201(10.86.0.221)/5061	ON		

Registering an Account on the Device

The users in the internal network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot shows the 'System Settings' window with the 'Cloud Account' tab selected. The 'Cloud Account' section contains the following fields and options:

- Yealink Meeting Server (dropdown)
- 2549 (dropdown)
- ***** (password field)
- 10.82.24.201.xip.io (domain name field, highlighted with a red box and labeled 'The primary domain name.')
- ☒ Remember password
- Advanced Options (dropdown)
- 10.82.24.201 (IP address field, highlighted with a red box and labeled 'The IP address of the internal network.')
- Login (button)

The 'Basic Settings' section contains the following fields and options:

- Site name: Yealink VC Desktop
- Language: English (dropdown)
- ☐ Start on boot

The users in the external network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot shows the 'System Settings' window with the 'Cloud Account' tab selected. The 'Cloud Account' section contains the following fields and options:

- Yealink Meeting Server (dropdown)
- 2549 (dropdown)
- ***** (password field)
- 10.82.24.201.xip.io (domain name field, highlighted with a red box and labeled 'The primary domain name.')
- ☒ Remember password
- Advanced Options (dropdown)
- 183.251.103.229 (IP address field, highlighted with a red box and labeled 'The IP address of the external network.')
- Login (button)

The 'Basic Settings' section contains the following fields and options:

- Site name: Yealink VC Desktop
- Language: English (dropdown)
- ☐ Start on boot

Scenario 5: Dual Network Adapters and Static NAT

Port Mapping Requirements

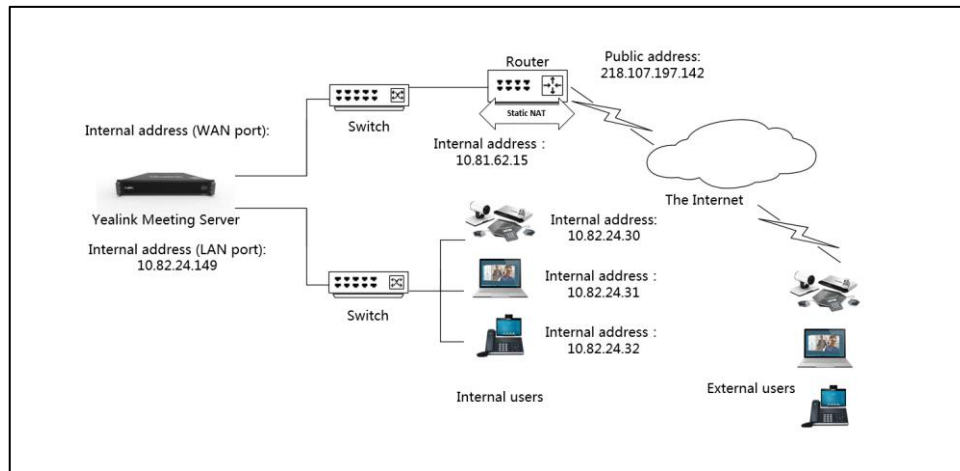
If the following ports are restricted in your network environment, you need open these ports. If the YMS is deployed in an intranet, you should map the following ports to the Internet on the router to realize the interconnection between the private and the Internet.

Module	Port	UDP/TCP	Description
Web port	443	TCP	HTTPS port
	444	TCP	YMS can be trusted by the Yealink devices even if the web HTTPS certificate is replaced by YMS.
	80	TCP	HTTP port
Rsyslog log service port	514	UDP/TCP	YMS server can collect the device log via this port.
H.323port	1719	UDP/TCP	The RAS listener port of the gatekeeper.
	1720	UDP/TCP	The H.225 listener port of the gateway.
	1722	UDP/TCP	The H.225 listener port of the gatekeeper.
Turnserver port	3478	UDP/TCP	The listener port of the traversal service.
	3479	UDP/TCP	The backup listener port.
	9688	UDP/TCP	This port, which has impact on the traversal service, should be mapped as long as there is IP mapping.
SIP port	5060	UDP/TCP	It is used for the IP call service.
	5061	UDP/TCP	It is used for the registration service.
	5062-5070	UDP/TCP	It is used for the third-party service, the PSTN gateway service, the peer trunk service, the REG trunk service, and Skype for Business service.
Media port	10000-65535	UDP/TCP	It is used for the MCU service, IVR, BFCP/FECC, the conference stack signaling, the conference stack media, and the traversal service (UDP is compulsory but TCP is optional).

Setting the Network


To ensure the YMS security and maintain the internal network, you can deploy YMS in the internal network and configure the address by static NAT mapping through the router and YMS, so that users in external network can access YMS.

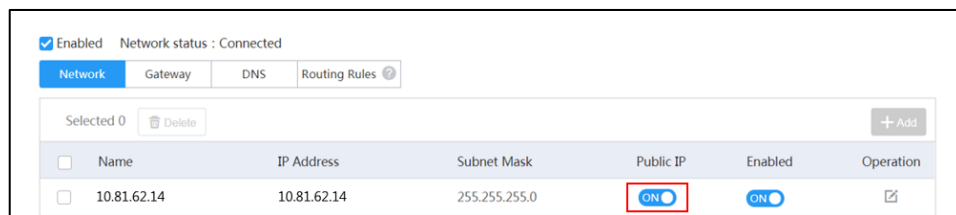
You need configure the internal and external network adapter on YMS to finish the deployment.



For example, a server in the internal network, with the IP address of LAN port as 10.82.24.149 and the primary domain name as 10.82.24.149.xip.io, is used for the user in the internal network to access and register. The IP address (10.81.62.14) and domain name of this server's WAN port, after the static NAT mapping, is 218.107.197.142 and ymstest2.yealink.com respectively, which can be used for the user in the external network to access and register.

Procedure:

1. Log into YMS, and click **System Setting->Node Management**.
2. Click  and the server will identify the IP addresses of the internal and external network adapter by default, and then configure the network parameter to ensure the network connectivity.
3. Select the desired adapter, and enable **Public IP**.



4. Click **Save**.

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted. If they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.

Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example when the device accessing the contact or downloading the firmware, you can set the service URL for the internal and external network separately, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. In the **WEB service address** field, click **Add service address**.
3. In the **Service network** field, select **Internal/External network**.
4. In the **Service URL** field, enter the URL.

The screenshot shows the 'WEB service address' configuration window. At the top, the 'Primary domain' is set to '10.82.24.149.xip.io'. Below this, the 'WEB service address' section contains a table with two columns: 'Service network' and 'Service URL'. The 'Internal network' row has the URL 'http://10.82.24.149'. The 'External network' row has the URL 'http://ymstest2.yealink.com'. There is an 'Add service address' button at the bottom of the table.

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Setting the Registration Service

You can configure the registration service to allow the user in the internal and external network to register a YMS account.

Procedure:

1. Log into YMS, and click **Service->SIP Service->Registration Service->Add**.
2. Configure the registration service for the internal network.

The screenshot shows the 'Add' configuration window for the Registration Service. The 'Enabled' toggle is turned 'ON'. The 'Name' field is set to 'Internal registration'. The 'Node' dropdown is set to 'Default(10.82.24.149)'. The 'Service address' section contains a table with two columns: '*Network' and '*TLS Port'. The '*Network' row has the value '10.82.24.149'. The '*TLS Port' row has the value '5061'. There is an 'Add' button at the bottom of the table. At the bottom of the window, the 'Enable security policy' toggle is turned 'OFF'.

3. Click **Save**.
4. Operate according to prompts and click **OK**.
5. Repeat the steps from 1 to 4 to configure the registration service for the external network.

Add

Enabled : ☒

* Name : External registration

* Node : Default(10.82.24.149)

Service address

*Network: 10.81.62.14 *TLS Port: 5061

+ Add

Enable security policy: ☐

After the configuration, the page is shown as below:

Registration Service + Add

Search

Selected 0 Delete

<input type="checkbox"/>	Name	Node	Network(IP : Port)	Enabled	Operation
<input type="checkbox"/>	External registration	Default(10.82.24.149)	10.81.62.14(10.81.62.14)/5061	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Internal registration	Default(10.82.24.149)	10.82.24.149(10.82.24.149)/5061	<input checked="" type="checkbox"/>	

Configuring the Address Port Mapping

Because the port 5060 and 5061 of 10.81.62.14 are mapped to the port 5060 and 5061 of 218.107.197.142, you need add address port mapping on YMS.

Procedure:

1. Log into YMS, and click **System Setting**->**Address Port Mapping**->**Add**.
2. Configure the address port mapping.

* Enable : ☒

* Name : address port mapping-1

* Public IP : 218.107.197.142

* Public Port : 5060 ~ 5061

* Internal IP : 10.81.62.14

* Internal Port : 5060 ~ 5061

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Registering an Account on the Device

The users in the internal network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot displays the 'System Settings' window of the Yealink VC Desktop application. The left sidebar contains a menu with options: Cloud Account, Basic Settings, Manual bind, Call Functions, H.323 Registration, SIP Registration, SIP IP Call, Device, Network, License, and About. The main area is divided into two sections: 'Cloud Account' and 'Basic Settings'.

Cloud Account Section:

- 'Yealink Meeting Server' is selected in the dropdown menu.
- The user ID is '2549'.
- The password is masked with '*****'.
- The primary domain name is '10.82.24.149.xip.io', highlighted with a red box and an annotation: 'The primary domain name.'
- The 'Remember password' checkbox is checked.
- The 'Advanced Options' section is expanded, showing the internal network IP address '10.82.24.149', highlighted with a red box and an annotation: 'The IP address of the internal network.'
- A blue 'Login' button is located below the IP address field.

Basic Settings Section:

- 'Site name' is 'Yealink VC Desktop'.
- 'Language' is 'English'.
- The 'Start on boot' checkbox is unchecked.

The users in external network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:

The screenshot displays the 'System Settings' window of Yealink VC Desktop. The left sidebar contains a menu with the following items: Cloud Account, Basic Settings, Manual bind, Call Functions, H.323 Registration, SIP Registration, SIP IP Call, Device, Network, License, and About. The main content area is divided into two sections: 'Cloud Account' and 'Basic Settings'.

Cloud Account Section:

- 'Yealink Meeting Server' is selected in the dropdown menu.
- The account ID '2549' is entered in the dropdown menu.
- A password is masked with '*****'.
- The primary domain name '10.82.24.149.xip.io' is entered in the text field, highlighted with a red box and labeled 'The primary domain name.'
- The 'Remember password' checkbox is checked.
- The 'Advanced Options' section is expanded, showing the NAT IP address '218.107.197.142' in the text field, highlighted with a red box and labeled 'The NAT IP address of the external network.'
- A blue 'Login' button is located below the NAT IP field.

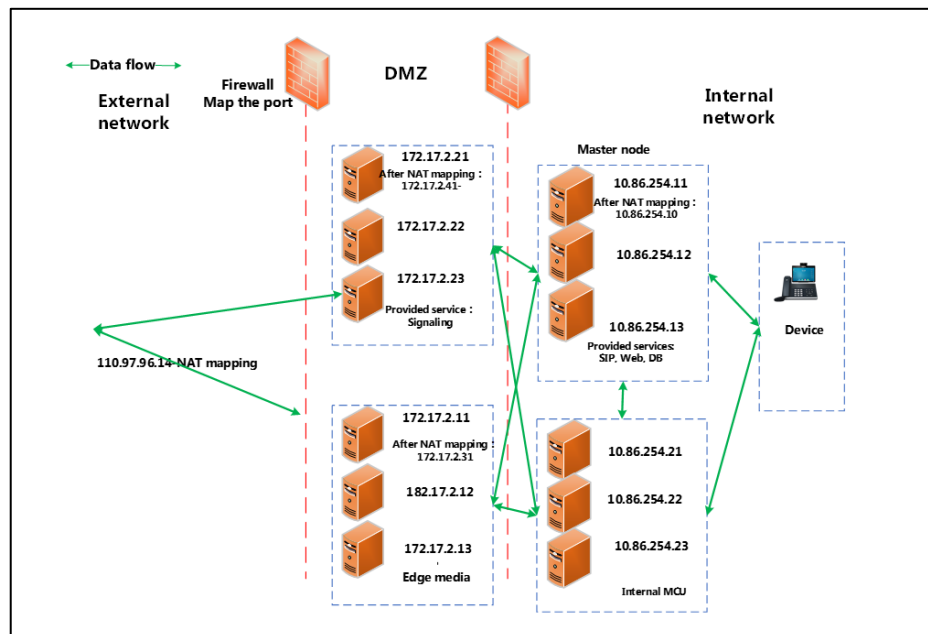
Basic Settings Section:

- 'Yealink VC Desktop' is entered in the 'Site name' text field.
- 'English' is selected in the 'Language' dropdown menu.
- The 'Start on boot' checkbox is unchecked.

Cluster Deployment

If your enterprise uses cluster deployment, you need configure each node according to the deployment plan.

The following part takes this environment as an example and introduces how to configure the registration service. For other services, refer to [Yealink Meeting Service Administrator Guide](#).



The above topology IP is described as below:

- Three master nodes:** 10.86.254.11 (the master node), 10.86.254.12 (the sub-master node), 10.86.254.13 (the sub-master node), with 10.86.254.10 and 10.86.254.11 configured on one network adapter and 10.86.254.10 mapped to the external network 110.87.96.14 by NAT.
- Nine business nodes which include the following:**
 - Three edge nodes (providing signaling service):** 172.17.2.21, 172.17.2.22, 172.17.2.23, with 172.17.2.41 and 172.17.2.21 configured on one network adapter and 172.17.2.41 mapped to the external network 110.87.96.14 by NAT.
 - Three edge nodes (providing media service):** 172.17.2.11, 172.17.2.12, 172.17.2.13, with 172.17.2.31 and 172.17.2.11 configured on one network adapter and 172.17.2.31 mapped to the external network 110.87.96.14 by NAT.
 - Three MCUs:** 10.86.254.21, 10.86.254.22, 10.86.254.23.

Port Mapping Requirements

If the following ports are restricted in your network environment, you need open these ports. If the YMS is deployed in an intranet, you should map the following ports to the Internet on the router and YMS to realize the interconnection between the private and the Internet.

Requirements of the internal service port: make sure that the following ports in every node of the cluster can communicate with each other.

Port	UDP/TCP	Description
8000-9000	UDP+TCP	The internal service port.
27017	UDP+TCP	This port is used for database accessing.
22	TCP	This port is used for installing or upgrading YMS via SSH.


Requirements for the External Service Port:





























Module	Port	UDP/TCP	The detailed mapping information based on the above network topology
Web port	443	TCP	Map the port 443 of 172.17.2.41 to the port 8443 of the external network 110.87.96.14.
	444	TCP	unmapped
	80	UDP/TCP	Map the port 80 of 172.17.2.41 to the port 8080 of the external network 110.87.96.14.
Rsyslog service log port	514	UDP/TCP	unmapped
H.323 port	1719	UDP/TCP	Map a port (from 1719 to 1722) of 172.17.2.41 to a port (from 1719 to 1722) of the external network 110.87.96.14.
	1720	UDP/TCP	
	1722	UDP/TCP	
Turnserver port	3478	UDP/TCP	Map a port (from 3478 to 3479) of 172.17.2.31 to a port (from 3478 to 3479) of the external network 110.87.96.14.
	3479	UDP/TCP	
	9688	UDP/TCP	unmapped
SIP port	5060	UDP/TCP	Map a port (from 5060 to 5061) of 172.17.2.41 to a port (from 5060 to 5061) of the external network 110.87.96.14.
	5061	UDP/TCP	
	5062-5070	UDP/TCP	unmapped
Media Port	10000-65535	UDP/TCP	Map a port (from 10000 to 29999) of 172.17.2.41 to a port (from 10000 to 29999) of the external network 110.87.96.14.

Setting the Web

You need configure the internal network to ensure a smooth internal network first and then configure the external network mapping. Note that the name of each node is default, you can edit them for convenient management and recognition.

Procedure:

1. Log into YMS, and click **System Setting->Node Management**.
2. Click  and the server will identity the IP address of each node by default, and configure the network parameter to ensure the network connectivity.

Node Management								
Search <input type="text"/>								
Selected 0 								
<input type="checkbox"/>	Name	IP List	CPU	Memory	Status	Description	Enabled	Operation
<input type="checkbox"/>	YMS-manager-1	10.86.254.11	16 * 2.10GHz	20.6GB	Online	---		 
<input type="checkbox"/>	YMS-manager-3	10.86.254.13	16 * 2.10GHz	20.6GB	Online	---		 
<input type="checkbox"/>	YMS-manager-2	10.86.254.12	16 * 2.10GHz	20.6GB	Online	---		 
<input type="checkbox"/>	YMS-edge-media-1	172.17.2.11,172.17.2.22	8 * 2.40GHz	8.0GB	Online	---		 
<input type="checkbox"/>	YMS-edge-signal-2	172.17.2.22	8 * 2.40GHz	12.1GB	Online	---		 
<input type="checkbox"/>	YMS-mcu-1	10.86.254.21	8 * 2.10GHz	16.3GB	Online	---		 
<input type="checkbox"/>	YMS-mcu-3	10.86.254.23	8 * 2.10GHz	16.3GB	Online	---		 
<input type="checkbox"/>	YMS-edge-media-3	172.17.2.13	8 * 2.40GHz	8.0GB	Online	---		 
<input type="checkbox"/>	YMS-edge-signal-3	172.17.2.23	8 * 2.40GHz	12.1GB	Online	---		 

Note

Make sure that DNS server is available. Otherwise, the service will be abnormal. You can configure only one default routing; when the adapter has multiple IP addresses, **the routing of all the IP addresses should be specified, the default one cannot be used**; the smaller the number is, the higher the priority of the routing rule is; the routing rules came with the server cannot be deleted. If they are deleted, other added routing rules will be abnormal.

Setting the Primary Domain Name

You can set the primary domain name for authentication.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.
2. Enter the address in the **Primary Domain** field, and the domain name can be directed to any server node IP.
Default domain name is <your computer IP>.xip.io. xip.io is an open domain name which is resolved to the IP address before xip.io by default, for example 10.10.10.10.xip.io is resolved to 10.10.10.10 via DNS.
3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Web Service Address

To make the device access the Web service address, for example when the device accessing the contact or downloading the firmware, you can set the service URL for the internal and external network separately, and then the server will send the corresponding address according to the network where the device locates in.

Procedure:

1. Log into YMS, and click **System Setting->Common Setting->Network Association**.

2. In the **WEB service address** field, click **Add service address**.
3. In the **Service network** field, select **Internal/External network**.
4. In the **Service URL** field, enter the URL.

WEB service address :

Service network :	Service URL :
Internal network	https://10.86.254.11
External network	https://110.87.96.14:8443
+ Add service address	

5. Click **Save**.
6. Operate according to prompts and click **OK**.

Configuring the Address Port Mapping

Because the port 443 of the internal network 172.17.2.41 is mapped to the port 8443 of the external network 110.87.96.14, you need add address port mapping on YMS.

Procedure:

1. Log into YMS, and click **System Setting->Address Port Mapping->Add**.
2. Configure the address port mapping.

* Name : Address port mapping-1

* Public IP : 110.87.96.14

* Public Port : 8443 ~ 8443

* Internal IP : 172.17.2.41

* Internal Port : 443 ~ 443

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Setting the Registration Service

You can configure the registration service to allow the user in the internal and external network to register a YMS account.

Procedure:

1. Log into YMS, and click **Service->SIP Service->Registration Service->Add**.
2. Configure the registration service for the internal network.

Selected 0 Delete				
<input type="checkbox"/>	Name	Node	Network(IP : Port)	Enabled
<input type="checkbox"/>	Internal registration 1	YMS-edge-signal-1	172.17.2.41(172.17.2.41:5061)	OFF
<input type="checkbox"/>	Internal registration 2	YMS-manager-1	YMS-manager-1(10.86.254.11:5061)	ON

3. Configure the registration service for the external network.

For example, add 172.17.2.41 (mentioned in the above topology) to the server address.

Enabled : ☒

* Name :

* Node :

Service address

*Network

*TLS Port

After the configuration, the page is shown as below:

Selected 0 <input type="button" value="Delete"/>				
<input type="checkbox"/>	Name	Node	Network(IP : Port)	Enabled
<input type="checkbox"/>	external registration...	YMS-edge-signal-1	172.17.2.41(172.17.2.41:5061)	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Internal registration 1	YMS-edge-signal-1	172.17.2.41(172.17.2.41:5061)	<input type="checkbox"/>
<input type="checkbox"/>	Internal registration 2	YMS-manager-1	YMS-manager-1(10.86.254.11:5061)	<input checked="" type="checkbox"/>

Configuring the Address Port Mapping

Because the port 5060 and 5061 of 172.17.2.41 are mapped to the port 5060 and 5061 of 110.87.96.14, you need add address port mapping on YMS.

Procedure:

1. Log into YMS, and click **System Setting**->**Address Port Mapping**->**Add**.
2. Configure the address port mapping.

* Name :

* Public IP :

* Public Port : ~

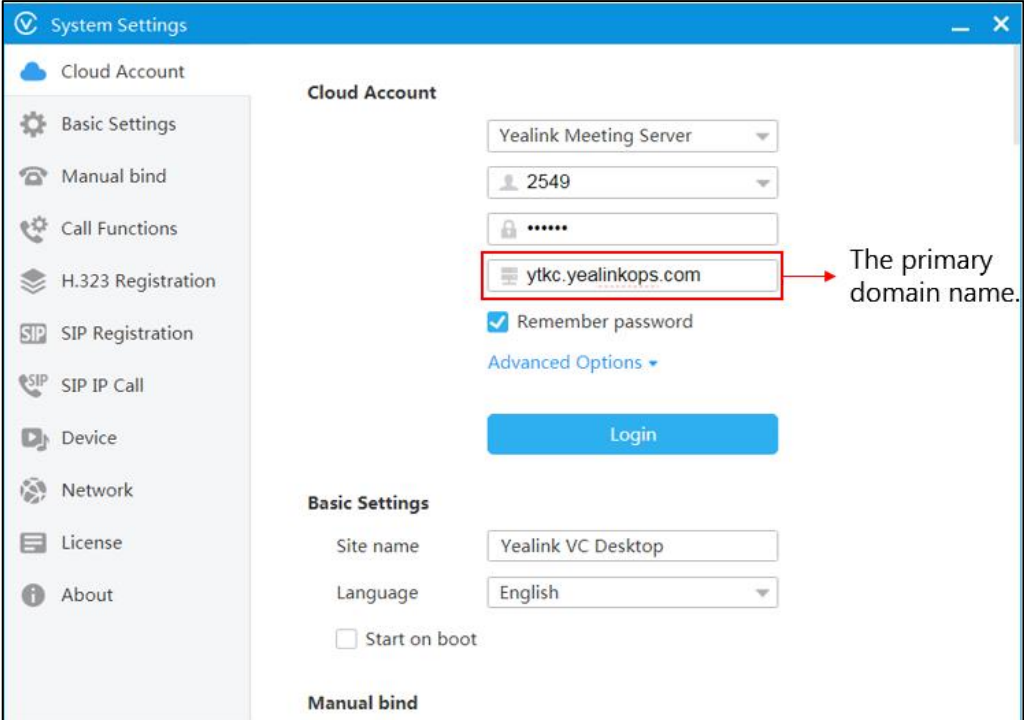
* Internal IP :

* Internal Port : ~

3. Click **Save**.
4. Operate according to prompts and click **OK**.

Registering an Account on the Device

The users in the internal and external network can register YMS accounts via Yealink VC Desktop. It is shown as the picture below:



The screenshot shows the 'System Settings' window of the Yealink VC Desktop application. The left sidebar contains a list of settings categories: Cloud Account, Basic Settings, Manual bind, Call Functions, H.323 Registration, SIP Registration, SIP IP Call, Device, Network, License, and About. The 'Cloud Account' section is selected and expanded. The main area displays the 'Cloud Account' configuration fields. A red rectangle highlights the 'Primary domain name' field, which contains the text 'ytkc.yealinkops.com'. An arrow points from this field to the text 'The primary domain name.' on the right. Other fields include 'Server' (Yealink Meeting Server), 'Account ID' (2549), and 'Password' (masked with dots). There is a 'Remember password' checkbox and an 'Advanced Options' link. A 'Login' button is at the bottom of the Cloud Account section. Below this, the 'Basic Settings' section includes 'Site name' (Yealink VC Desktop), 'Language' (English), and a 'Start on boot' checkbox. The 'Manual bind' section is partially visible at the bottom.

System Settings

Cloud Account

Yealink Meeting Server

2549

ytkc.yealinkops.com

☒ Remember password

[Advanced Options](#)

Login

Basic Settings

Site name: Yealink VC Desktop

Language: English

☐ Start on boot

Manual bind

The primary domain name.

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Technical Support

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