Yealink

Yealink Meeting Server Installation Guide

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About This Guide

This guide introduces how to install and deploy the YMS.

In This Guide

Topics include:

- Chapter 1 Hardware and Software Recommendations
- Chapter 2 Port Forwarding Requirements
- Chapter 3 Yealink Meeting Server Installation
- Chapter 4 Configuring Setup Wizard
- Chapter 5 Typical Network Deployment Methods

Summary of Changes

This section describes the changes in this guide for each release and guide version.

Changes for Release 23, Guide Version 10.23.0.60

Major updates have occurred to the following sections:

- Port Forwarding Requirements on page 3

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Hardware and Software Recommendations

This chapter provides the hardware recommendations of your server.

Feature	Description
CPU	Intel Xeon E5-2600 series (Haswell architecture) or similar Xeon processors from 2012 or later, 2.3 GHz or faster. A CPU should match 4 RAM.
RAM	4GB/DDR3/2133MHz/ECC or higher 8GB/DDR4/2400MHz/ECC or higher
Hard Drive Space	300GB or higher
Network	• Gigabit Ethernet connection is strongly recommended. • In general, you can expect 1 Mbps in a one-way 720P video call. And you can expect 2 Mbps in a one-way 1080P video call.
Capacity	Capacity is dependent on server specifications. As a general indication, using our recommended hardware (Intel Haswell, 10 cores, 2.3 GHz), YMS can connect: • The maximum concurrent calls=total CPU cores*frequency. • Up to extra 10 audio-only calls at 64 kbps. Servers that are older, with slower processors, or fewer CPUs, will have a lower overall capacity.
Linux	CentOS 7.0 and later

For example, if you want to initiate 20-way 1080P concurrent calls or 40-way 720P concurrent calls, the following hardware is recommended.

CPU	2 Intel Xeon Processor E5-2620V4, eight cores and sixteen threads, 2.1GHz 20M 8.0GT/s 85W or higher
Memory	8 8GB/DDR4/2400MHz/ECC or higher

If you want to initiate 40-way 1080P concurrent calls or 80-way 720P concurrent calls, the following hardware is recommended.

CPU	2 Intel Xeon Processor E5-2680V4, fourteen cores and twenty-eight threads, 2.4GHz 35M 9.6GT/s 120W or higher
Memory	8 8GB/DDR4/2400MHz/ECC or higher

Port Forwarding Requirements

If the following ports are restricted in your network environment, please open these ports.

If the YMS is deployed in an Intranet, you should solve the interconnection problem between private and public network by port forwarding. You must forward the following ports to the public network on the router.

Field	Port	UDP/TCP	Effect
System	22	TCP	SSH port
	80	TCP	HTTP port
	443	TCP	HTTPS port
	514	UDP	SYSLOG port
	514	TCP	SYSLOG port
SIP	5060	TCP	SIP port
	5060	UDP	SIP port
	5061	TCP	SIP port
	5067	TCP	Skype for Business local listening port
Turn server	3478	UDP	STUN port
	3479	UDP	STUN port
MCU broadcast service	3688	TCP	Broadcasting server listening port
WebRTC	442	TCP	WebRTC listening port
H.323 gateway	1720	TCP	H.225 listening port (TCP)
H.323 gatekeeper	1718	UDP	RAS broadcasting listening port
	1719	UDP	RAS listening port
	1722	TCP	H.225 listening port
	2776	UDP	H.460.19 RTP Multiplex port
	2777	UDP	H.460.19 RTCP Multiplex port
Media/Signali	30000-37999	UDP	IVR+BFCP port

Field	Port	UDP/TCP	Effect
ng port	38000-49999	UDP	TURN Relay port Media Proxy port
	50000-60000	UDP	MCU conference port
	30000-39999	TCP	H.245/Q931 port (H.323 gateway)
	20000~24999	TCP	H.245 port (H.323 gatekeeper)
	25000~29999	TCP	Q931 port (H.323 gatekeeper)
	15000~19999	UDP	Media forwarding port (H.323 gatekeeper)
	60000~65000	UDP and TCP	Skype for Business server media port

Yealink Meeting Server Installation

You can select one of the following ways to install YMS:

- Installing Yealink Meeting Server with the Existing CentOS
- Installing Yealink Meeting Server by Importing OVA/OVF Files

Installing Yealink Meeting Server with the Existing CentOS

Before you begin

You should check the following points:

- If you want to install YMS to a virtual machine, the software and hardware recommendation:

Feature	Description
Type	• VMware ESXi 6.5 or later • Microsoft Hyper-V Server 2012 or later
CPU	One CPU
Memory	32GB
Hard Drive Space	Not less than 20GB

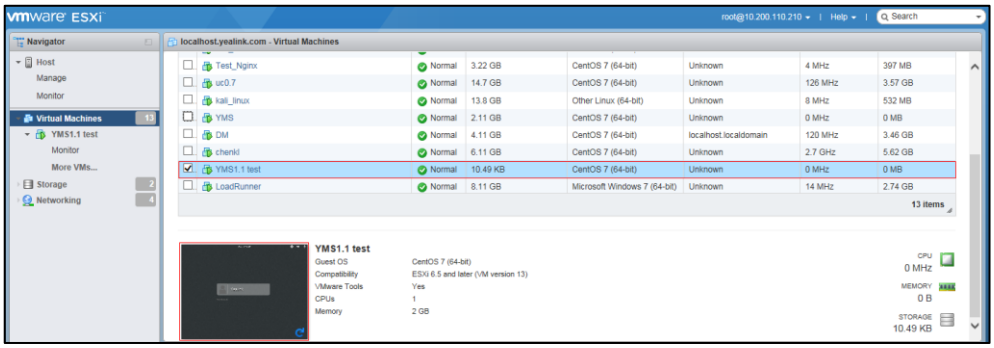
- If you want to install YMS to a physical machine, review the hardware and software recommendations. For more information, refer to Hardware and Software Recommendations on page 1.
- The operation system is CentOS 7.0 or later.

  For more information on how to install CentOS, please refer to CentOS 7.0.
- The disk partition of mcudata folder in CentOS should be 512G and the root folder in CentOS should be 256G.
- You obtain the YMS setup file from the Yealink distributor or Yealink technical support engineer, and the YMS setup file contains the *.tar.gz file.
- The YMS setup file is saved at the path **/usr/local**.

If you install YMS to a physical machine, you can skip the steps to power on CentOS, and install YMS directly.

To power on CentOS via VMware ESXi 6.5:

1. Log into the ESXi host.
2. Click **Virtual Machines** under the **Navigator**.
3. Check the checkbox of the desired virtual machine, and then click **Power on**.
4. Click the thumbnail to enter the CentOS interface.



The installation of 10.23.0.60 version is introduced as an example.

To install YMS (log into CentOS as the root user):

1. Enter terminal.
2. Run the command as below:

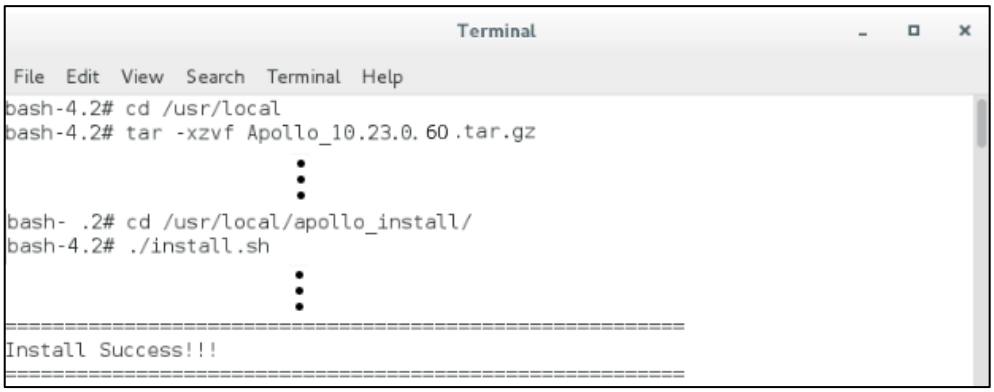
   cd /usr/local

   tar -xzvf Apollo_10.23.0.60.tar.gz

   cd /usr/local/apollo_install/

   ./install.sh

   After you finish the installation, it will prompt "Install Success!!!". And you will enter the setup wizard.



Related topics:

Configuring Setup Wizard

Installing Yealink Meeting Server by Importing OVA/OVF Files

Before you begin

You should check the following points:

- If you want to install YMS to a virtual machine, the following types of virtual machine are recommended:

Feature	Description
Type	• VMware ESXi 6.5 or later • Microsoft Hyper-V Server 2012 or later

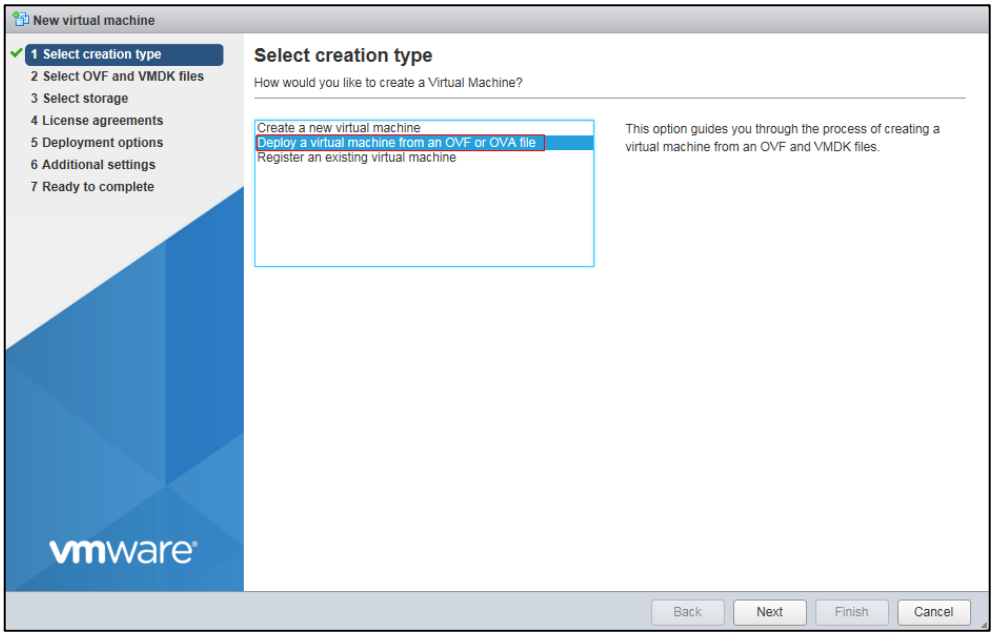
- You obtain the YMS setup file from the Yealink distributor or Yealink technical support engineer, and the YMS setup file contains the OVF and VMDK file or OVA file.

To install YMS via VMware ESXi 6.5:

1. Log into the ESXi host.
2. Click **Host** in the **Navigator**, and then select **Create/Register VM** to create a virtual machine.

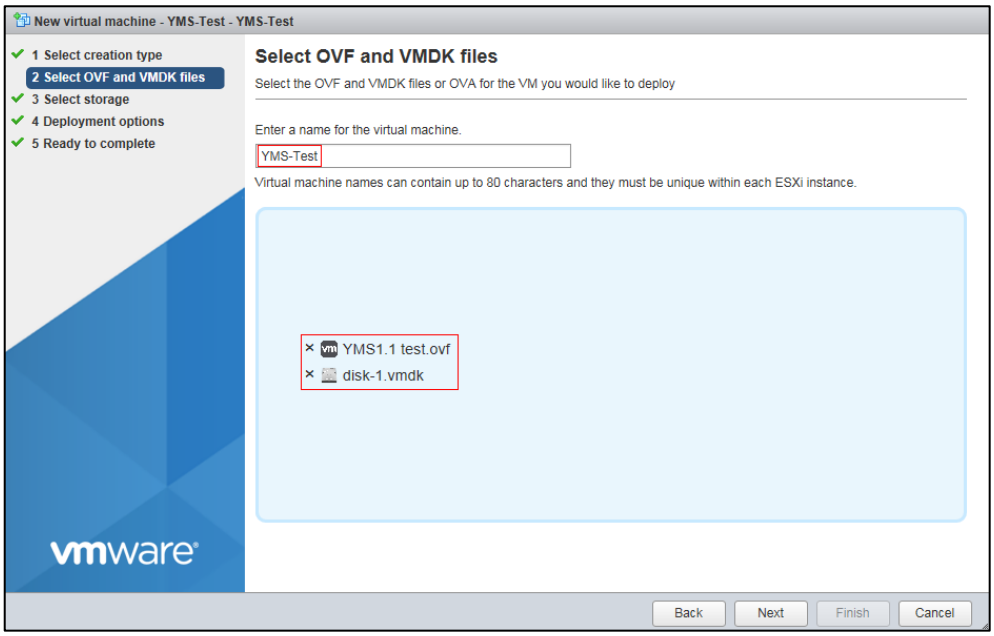


3. Select **Deploy a virtual machine from an OVF or OVA file**.



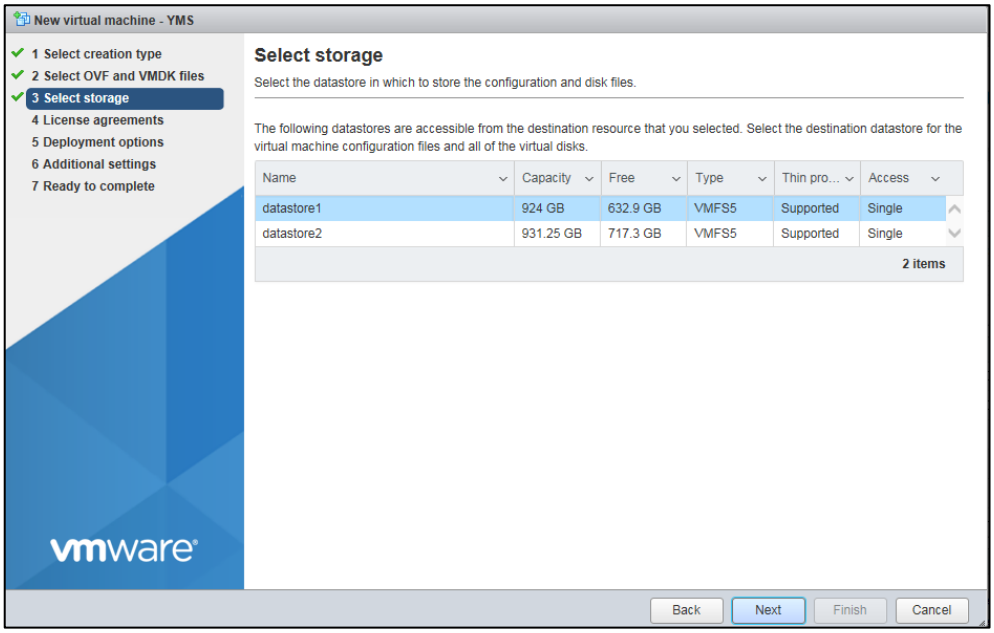
4. Click **Next** to continue.

5. Enter the name for the virtual machine, and then upload the OVF and VMDK file or OVA file.

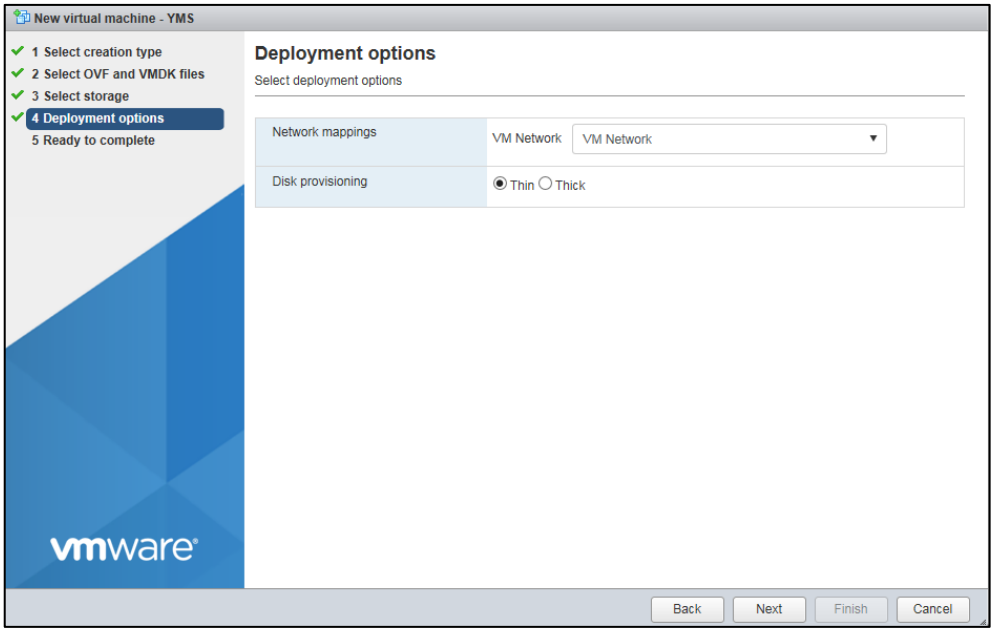


(Take the OVF and VMDK file as an example)

6. Click **Next** to continue.

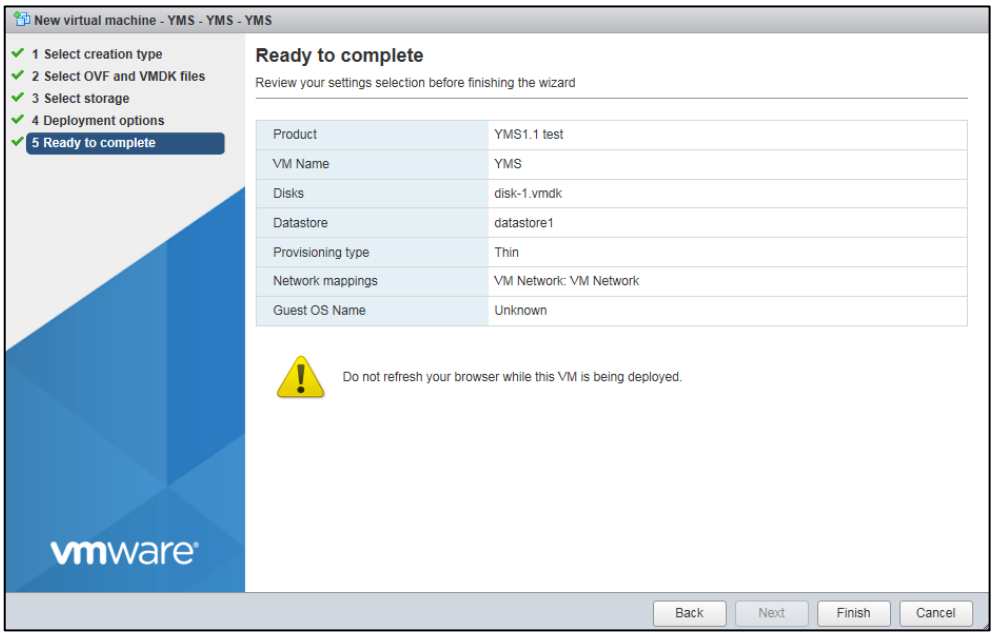


7. Select the default destination datastore for the virtual machine configuration files and all of the virtual disks.
8. Click **Next** to continue.



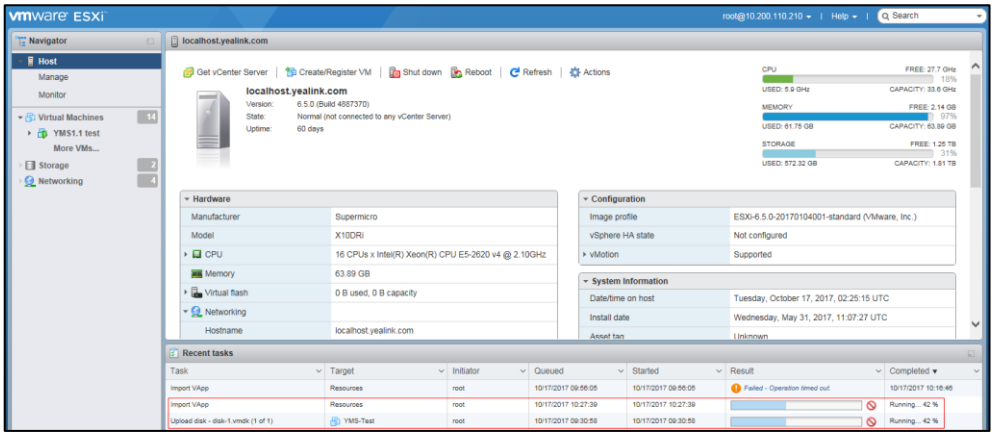
9. Select **VM Network** from the pull-down list of **VM Network**, and then mark the radio box of **Thin** in the **Disk provisioning** field.

10. Click **Next** to continue.



11. Click **Finish**.

    You can view the progress of uploading the files in the **Recent tasks** list.



    After the files are uploaded successfully, the installation is completed.

12. Click **Virtual Machines** in the **Navigator**.
13. Check the checkbox beside the virtual machine you created, and then click **Power on**.
14. Click the thumbnail to enter the virtual machine interface.
15. After the virtual machine starts successfully, open a Web browser.
16. Enter “127.0.0.1” in the address bar, and then press the **Enter** key to enter the setup wizard.

Related topics:

Configuring Setup Wizard

Configuring Setup Wizard

You can configure network, time/time zone, username/password, license and SMTP settings quickly.

When you finish the configuration of the current page in the setup wizard, click **Next** to enter another page.

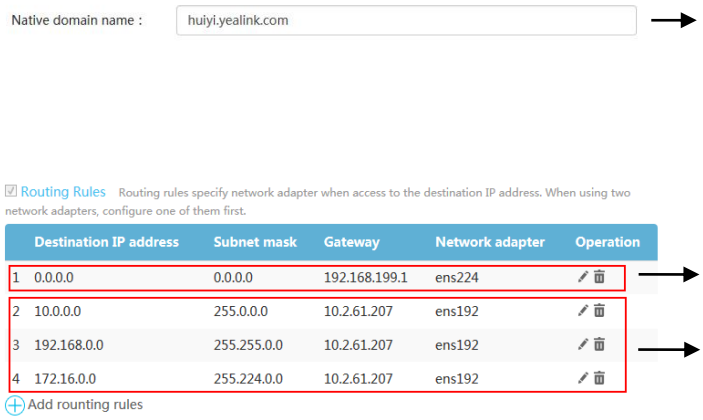
Before you begin

1. Review port forwarding requirements.
2. Install the YMS.

To configure setup wizard:

1. In the setup wizard, configure network settings.

   For more information, please refer to Typical Network Deployment Method on page 13.



Enter the native domain name. If you fail to log into YMS by domain name, you should use the IP address of YMS to log in.

Specify routing rules for external network.

Specify routing rules for all network segments in your enterprise.

2. Set the time and time zone.
3. Edit the login password and email of enterprise administrator.

   The email is used to edit login password and receive a warning from the server.
4. Enter the video license number to activate the video license.

   You need purchase the video license number from Yealink.
5. Set SMTP mailbox.

   The SMTP mailbox is used to send emails to users. For example, you can send account information to users by emails.
6. Click **OK** to complete the setup wizard.

Related topics:

Port Forwarding Requirements

Yealink Meeting Server Installation

Typical Network Deployment Methods

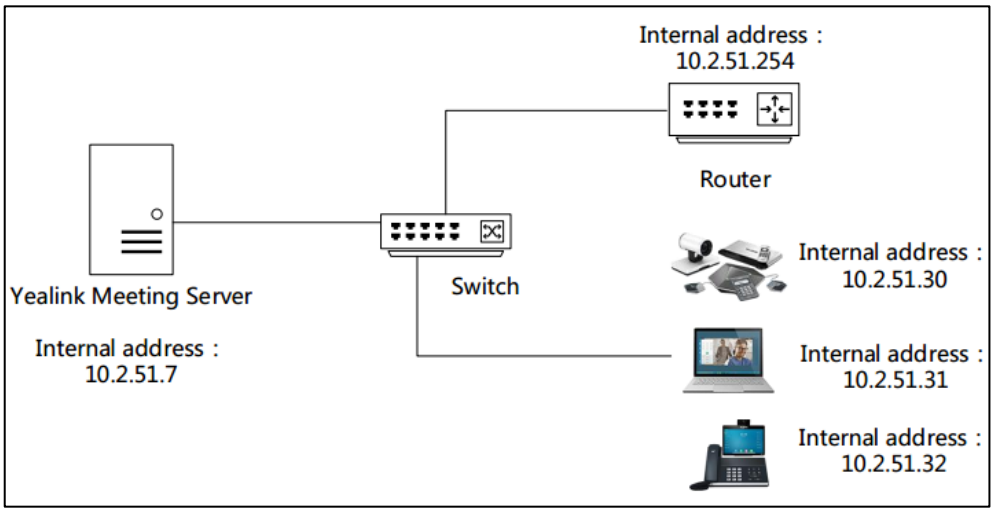
The YMS supports dual network adapters, you can configure the network in setup wizard according to the actual enterprise network condition.

This chapter provides 5 typical network deployment methods.

Scenario 1: A Single Network Adapter Deployment in Internal Network

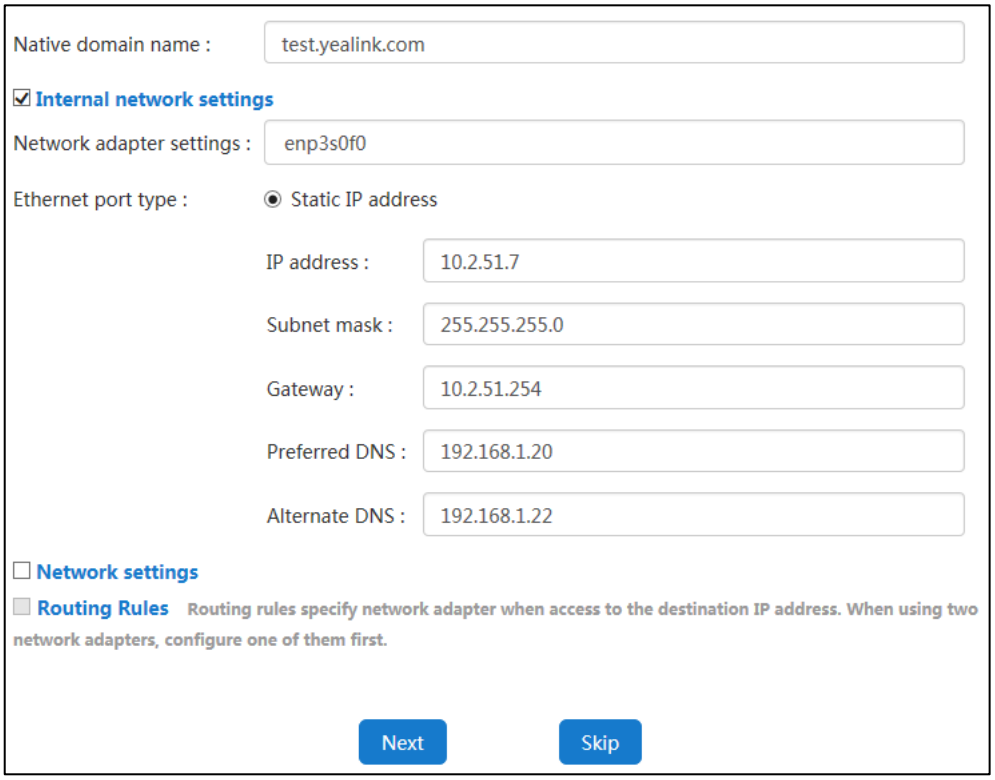
If you register YMS accounts, place a point-to-point single call or join video conferences in the internal network, you can deploy the YMS by this method.

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



To configure internal network settings via YMS:

1. Log into YMS, and then configure internal network settings.

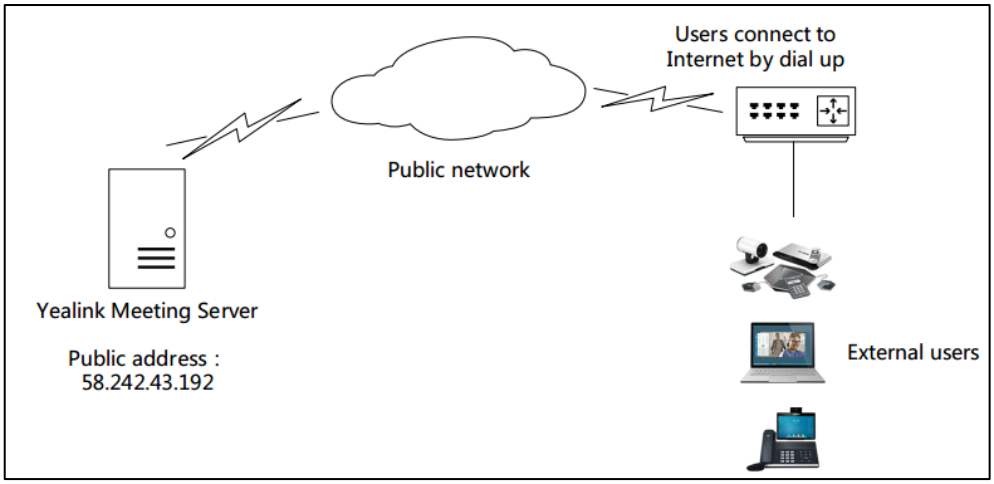


2. Click **Next** to save the network settings.

Scenario 2: A Single Network Adapter Deployment in External Network

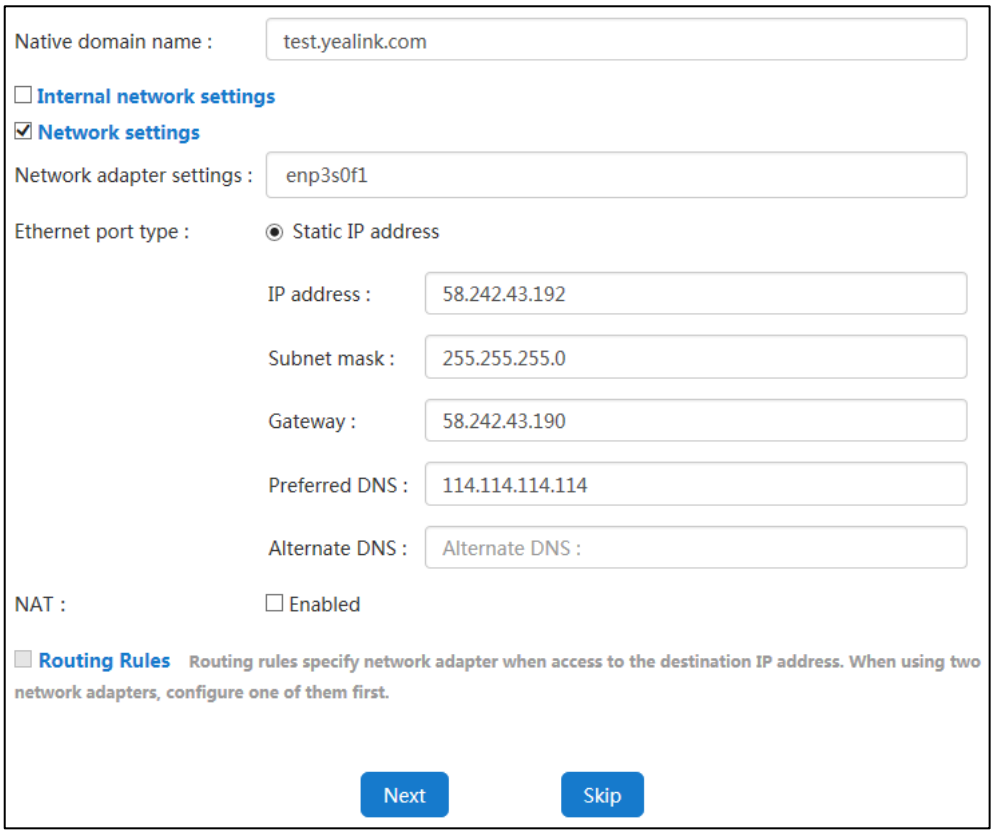
If you register YMS accounts, place a point-to-point single call or join video conferences in the public network, you can deploy the YMS in public network by this method.

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



To configure external network settings via YMS:

1. Log into YMS, and then configure external network settings.



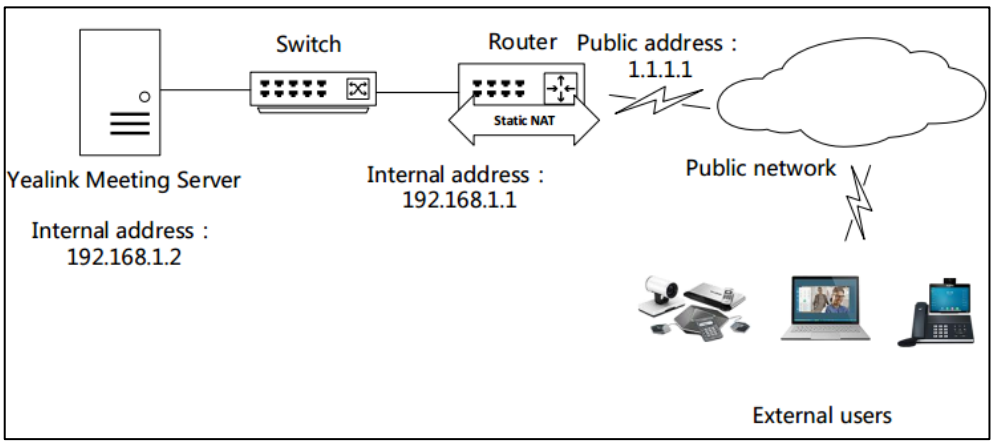
2. Click **Next** to save the network settings.

Scenario 3: A Single Network Adapter and Static NAT Deployment

To ensure the YMS security and maintain internal network, you can deploy the YMS in internal network. And you should configure static NAT by address forwarding on the router so that users in external network can access to the YMS.

Note This deployment does not support the users in internal network to sign into the YMS, otherwise when you place a call, a black screen may occur.

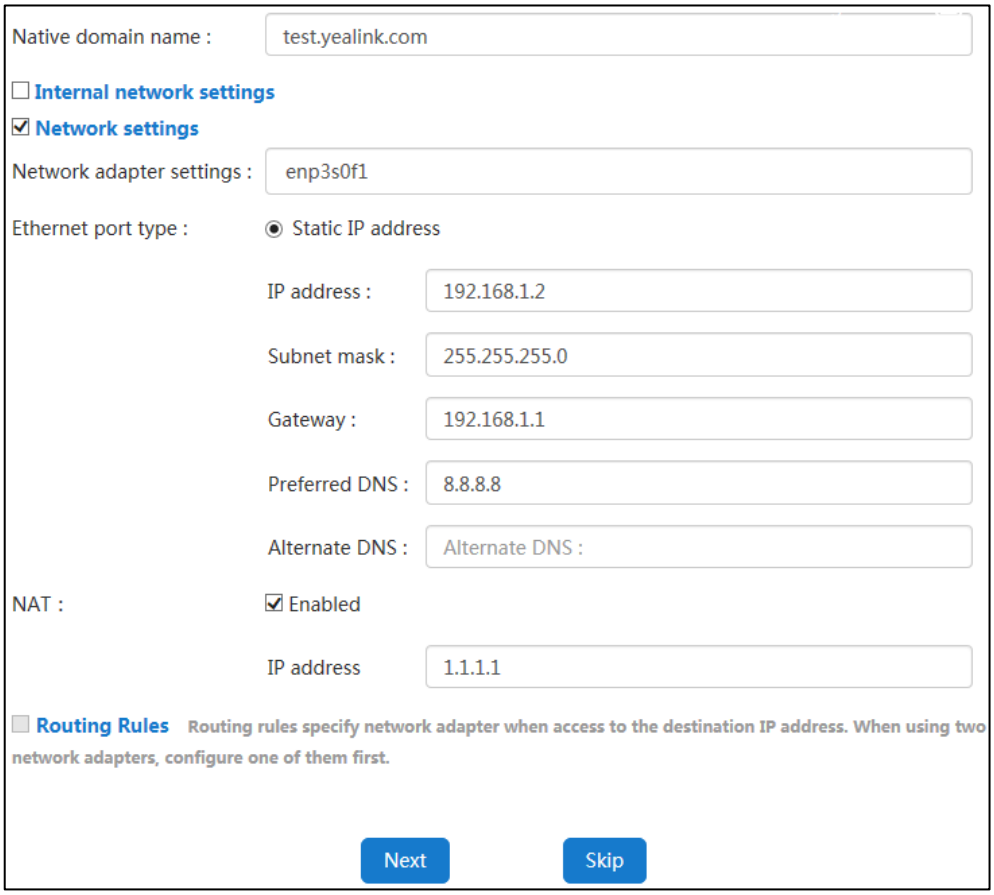
You just need configure the external network adapter via YMS to finish the deployment.



To configure external network settings via YMS:

1. Log into YMS, and then configure external network settings.

   The NAT IP address is consistent with the address configured on the router by static NAT.

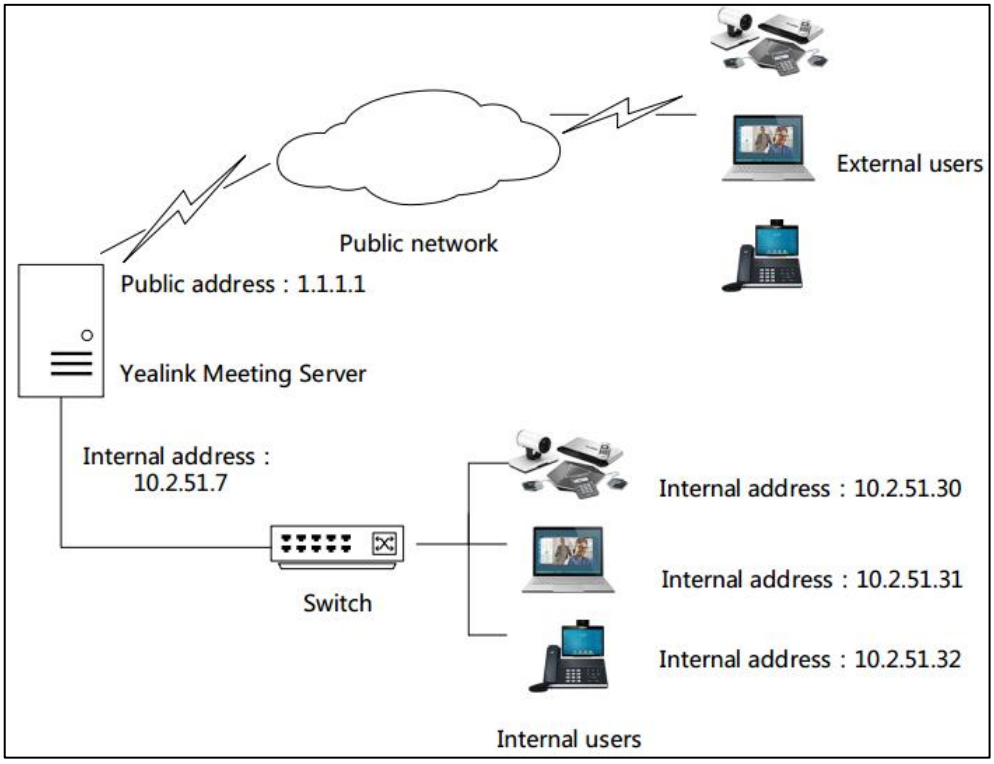


2. Click **Next** to save the network settings.

Scenario 4: Dual Network Adapters Deployment: Internal Network+ External Network

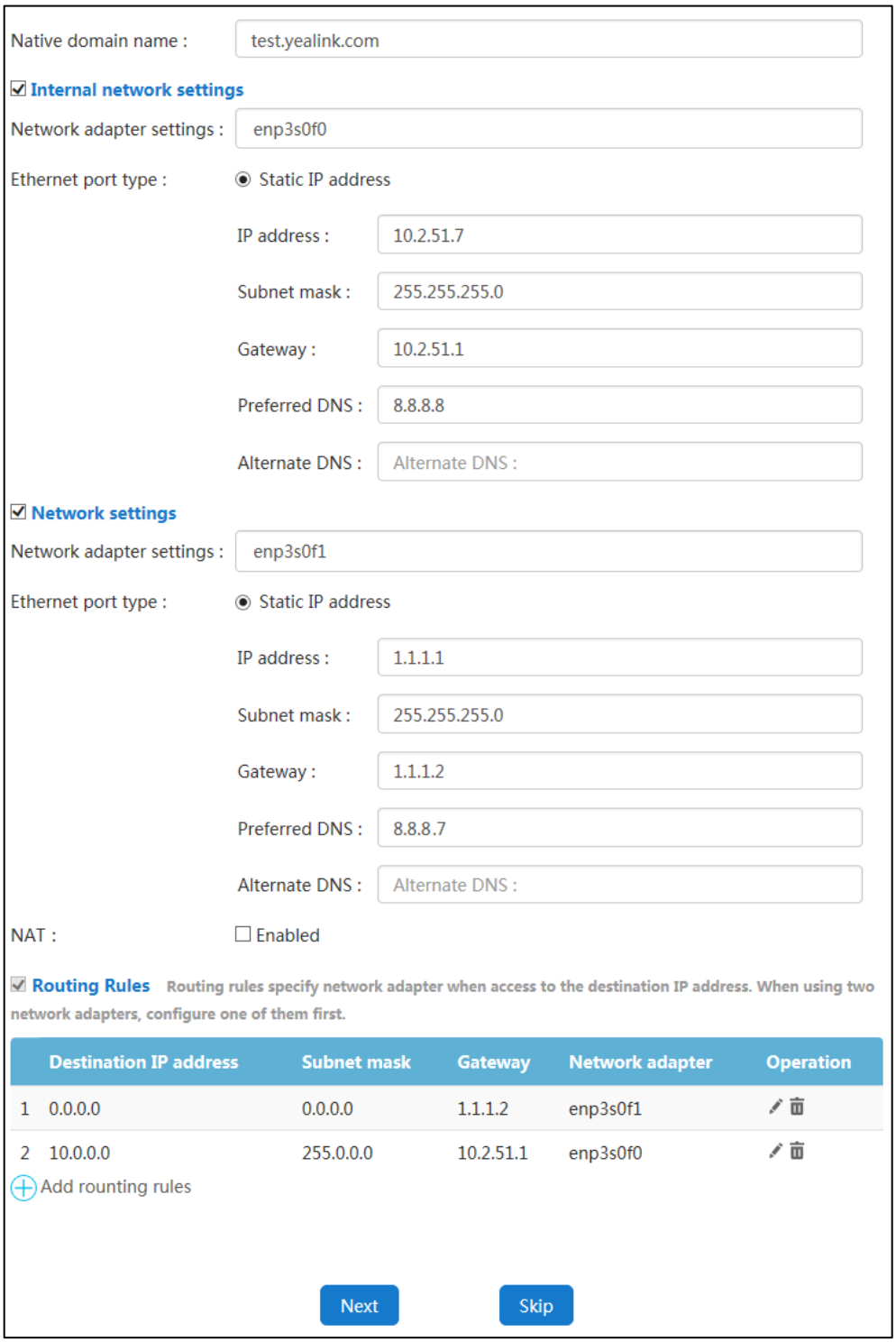
If you register YMS accounts, place a point-to-point single call or join video conferences in the internal network and public network, you can deploy the YMS by this method.

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



To configure internal and external network settings via YMS:

1. Log into YMS, and then configure internal and external network settings.

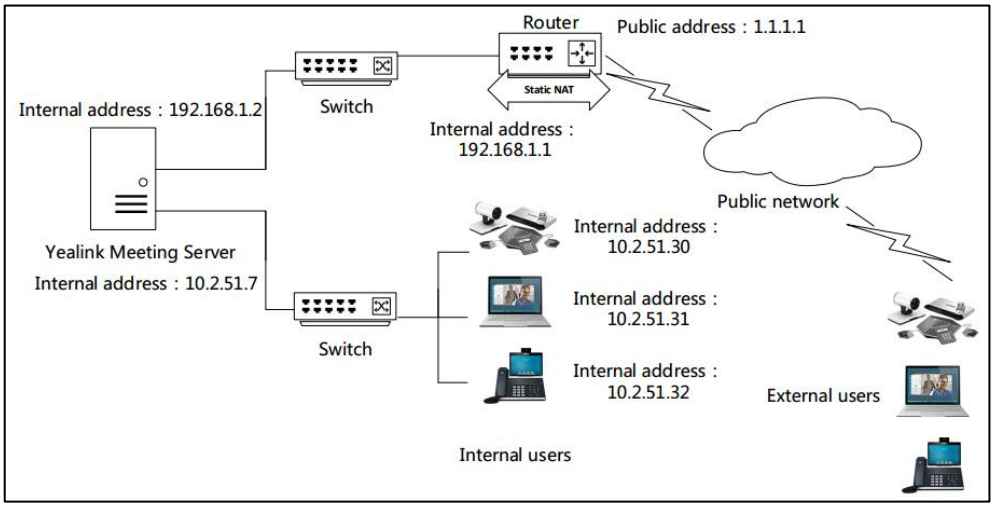


2. Click **Next** to save the network settings.

Scenario 5: Dual Network Adapters and Static NAT Deployment

To ensure the YMS security and maintain internal network, you can deploy the YMS in internal network. And you should configure static NAT by address forwarding on the router so that users in external network can access to the YMS.

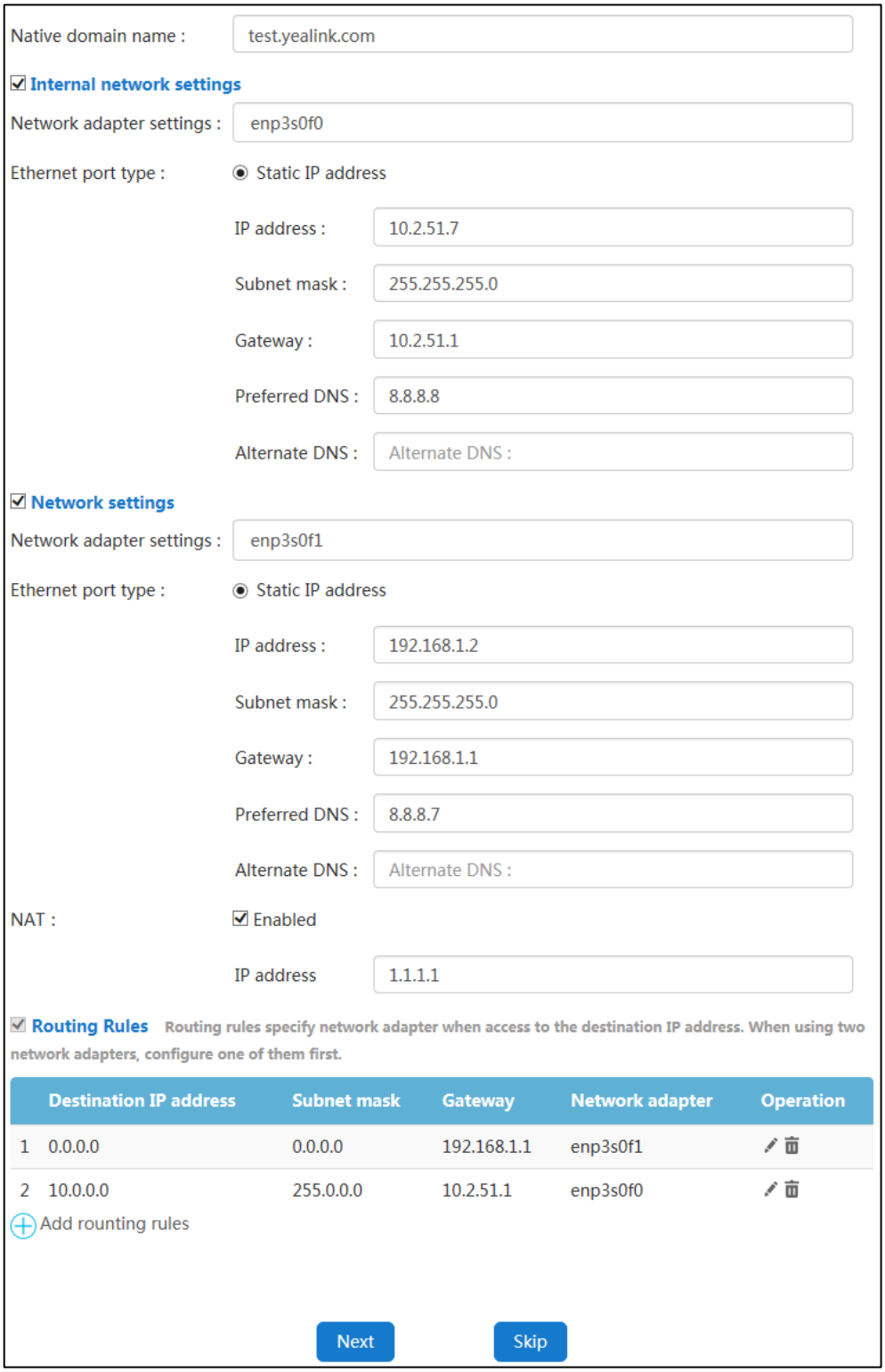
You need configure the internal and external network adapter via YMS to finish the deployment.



To configure internal and external network settings via YMS:

1. Log into YMS, and then configure internal and external network settings.

   The NAT IP address is consistent with the address configured on the router by static NAT.



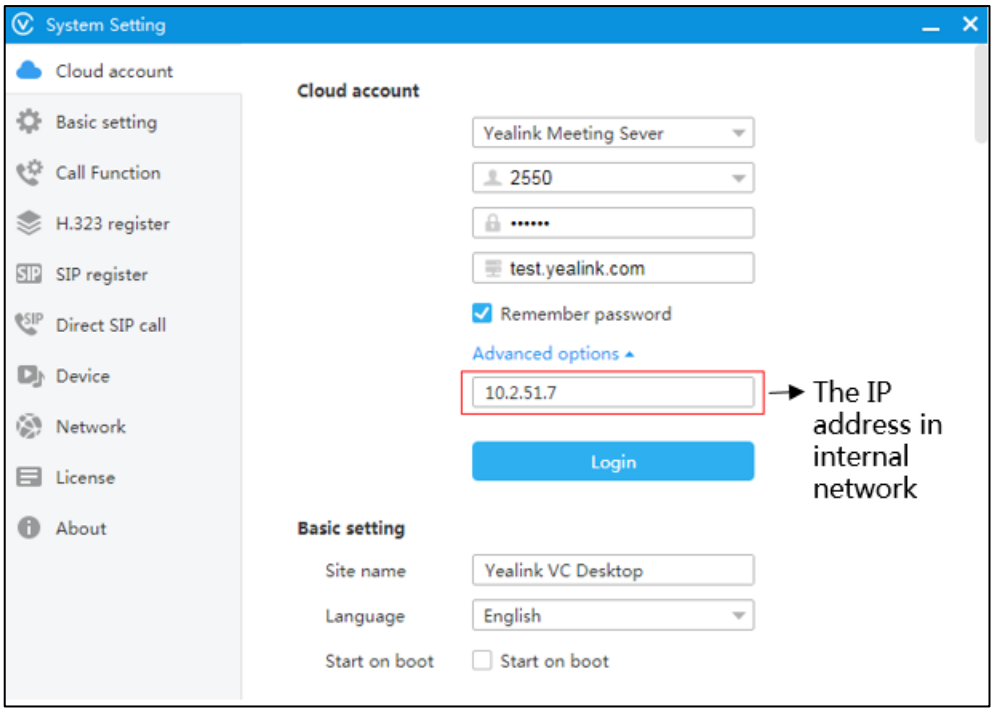
2. Click **Next** to save the network settings.

Endpoints Registration

When users register YMS accounts on endpoints, the domain name of YMS needs to be resolved by endpoints. If endpoints cannot resolve the domain name of YMS, the IP address which the domain name of YMS is resolved into is needed in the outbound server address field.

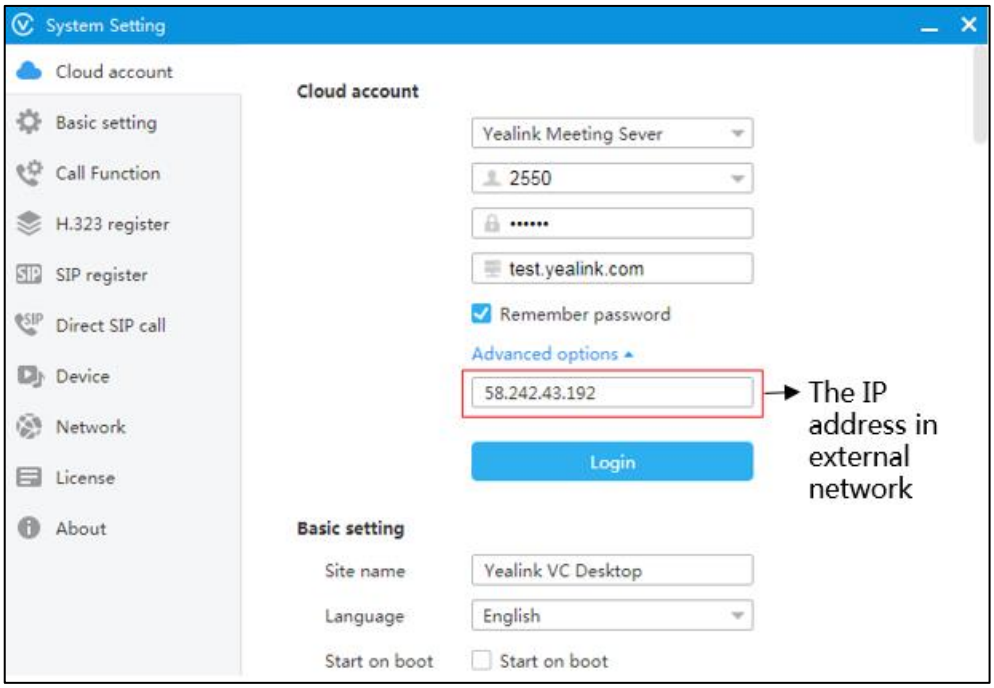
Scenario 1: A Single Network Adapter Deployment in Internal Network

Users in internal network register YMS accounts via Yealink VC Desktop.



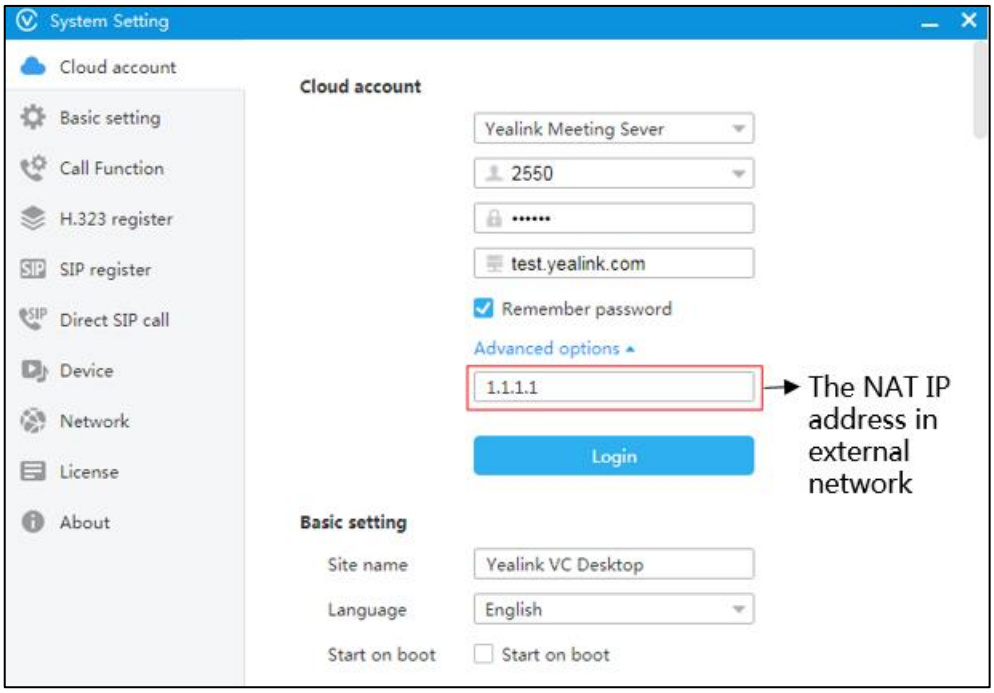
Scenario 2: A Single Network Adapter Deployment in External Network

Users in external network register YMS accounts via Yealink VC Desktop.



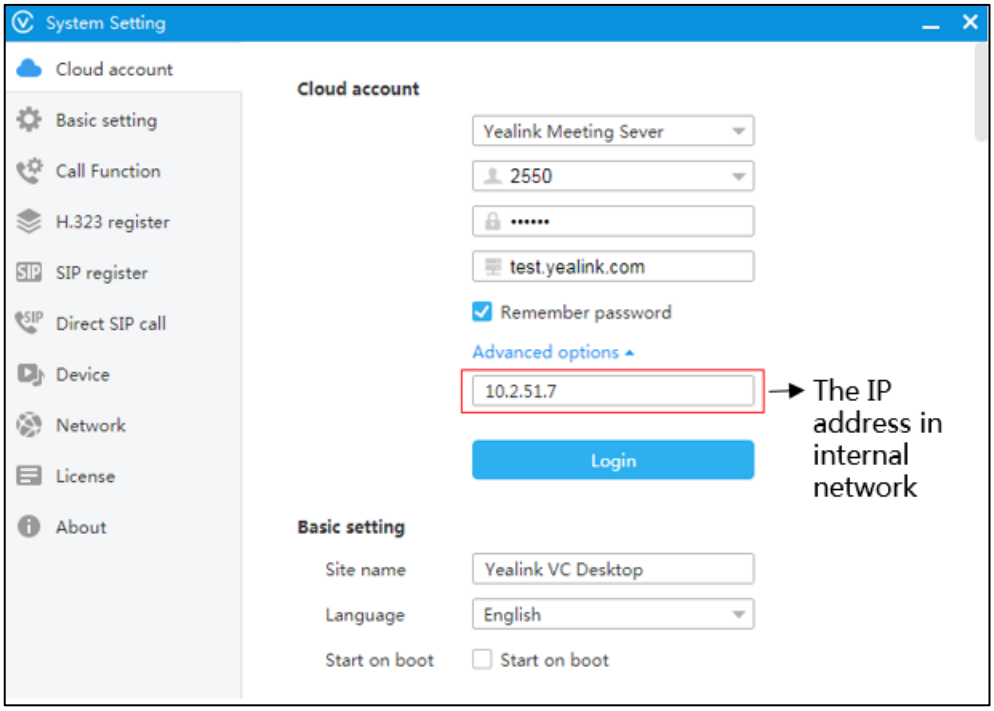
Scenario 3: A Single Network Adapter and Static NAT Deployment

Users in external network register YMS accounts via Yealink VC Desktop.

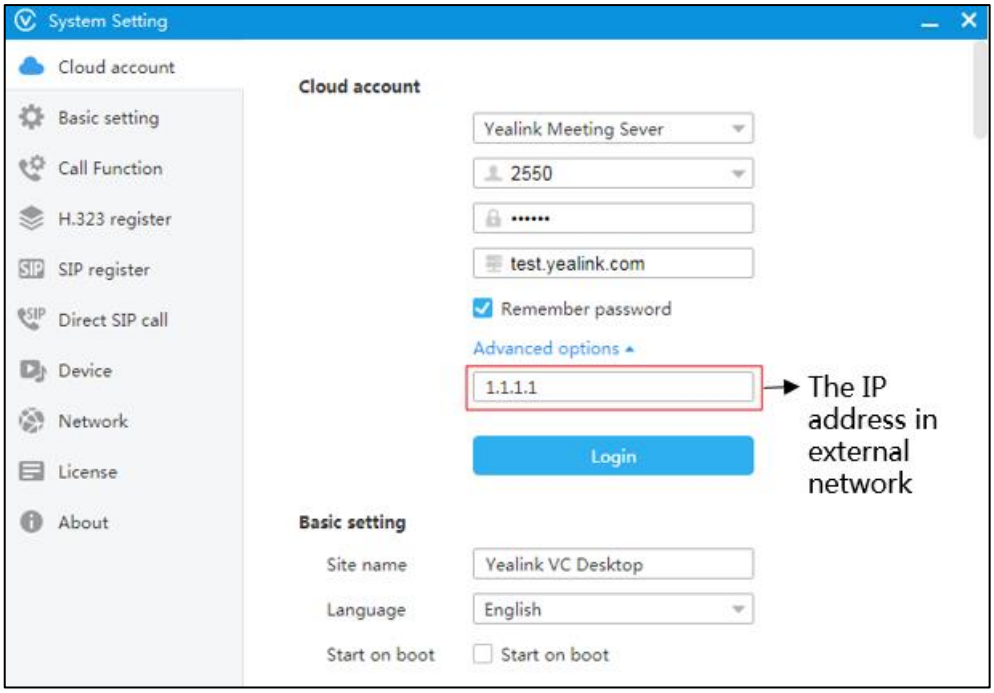


Scenario 4: Dual Network Adapters Deployment: Internal Network+ External Network

Users in internal network register YMS accounts via Yealink VC Desktop.

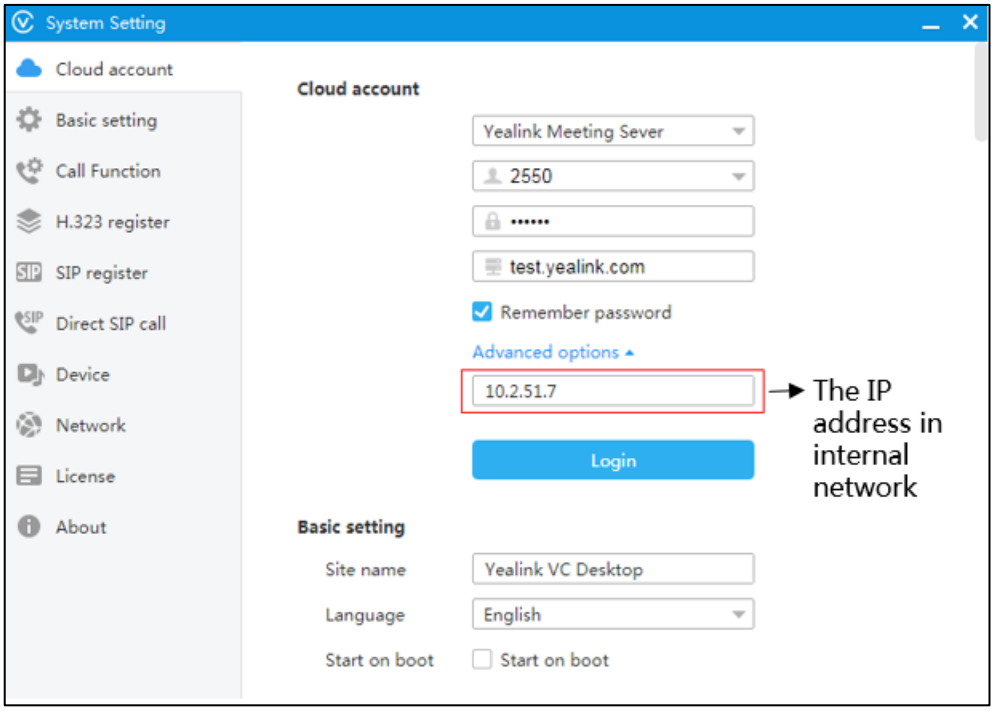


Users in external network register YMS accounts via Yealink VC Desktop.



Scenario 5: Dual Network Adapters and Static NAT Deployment

Users in internal network register YMS accounts via Yealink VC Desktop.



Users in external network register YMS accounts via Yealink VC Desktop.

