Yealink

Yealink Meeting Server Installation Guide

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About This Guide

Yealink Meeting Server (YMS) is a distributed video conferencing server. It enables scaling of video, voice and data collaboration across enterprises, enabling everyone to engage in high definition video and audio conferencing. It can be deployed in an enterprise's datacenter.

You can access Virtual Meeting Rooms (VMRs), which they can use to invite participants, change video layout and so on. Participants can join over audio or video from any type of communications tool (VC800/VC500/VC400/VC120/VC110 video conferencing endpoint, SIP VP-T49G IP phone, VC Desktop and VC Mobile) for a seamless conferencing experience. Virtual Meeting Rooms allow participants to share the same high-quality conferencing experience regardless of distance.

Yealink Meeting Server includes an Interactive Voice Response (IVR) service, which allows all participants to dial a single number to access YMS, and then use the DTMF tones on their endpoint to enter the number of the specific Virtual Meeting Room they wish to join.

YMS's unique distributed architecture is purely software-based and virtualized, meaning it can be deployed quickly and simply with the flexibility to scale as required.

This guide provides the steps required to install and deploy the YMS.

In This Guide

Topics provided in this guide include:

Table of Contents

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 connectivity is strongly recommended. • In general, you can expert 1 Mbps in a one-way 720P video call. And you can expert 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, have slower processors, or have 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

The following table lists the commonly used ports of the YMS, 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	TCP	SYSLOG port
	514	UDP	SYSLOG port
SIP	5060	TCP	SIP port
	5060	UDP	SIP port
	5061	TCP	SIP port
Turnserver	3478	UDP	STUN port
	3479	UDP	STUN port
Media port	30000-37999	UDP	IVR+BFCP port
	38000-49999	UDP	TURN Relay port Media Proxy port
	50000-60000	UDP	MCU conference port
	30000-39999	TCP	H.245 port
MCU broadcast service	3688	TCP	Broadcast server listening port
WebRTC	442	TCP	WebRTC listening port
H.323	1720	TCP	H.225 listening port

Yealink Meeting Server Installation

This chapter provides how to install the YMS.

Topic includes:

Installing Yealink Meeting Server with the Existing CentOS

Before you begin

1. Check the following points:

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

Feature	Description
Type	• VMware ESXi 6.5 or later • Microsoft Hyper-V Server 2012 or later
CPU	The number of CPUs is one.
Memory	32GB
Hard Drive Space	Not less than 20GB

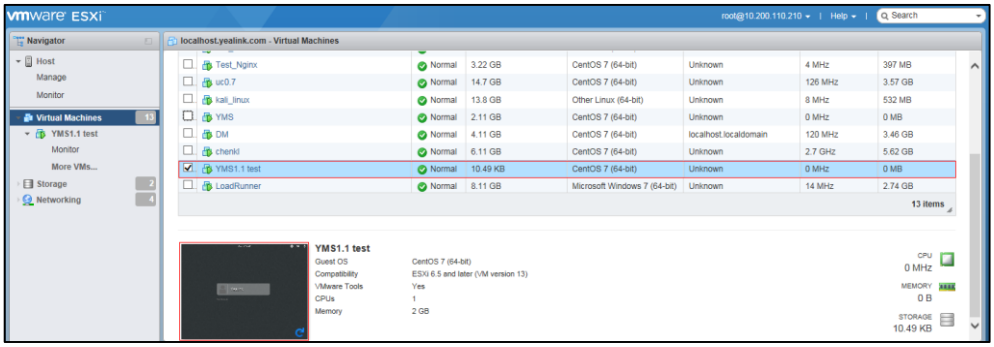
   - If you want to install YMS in physical machine, review the hardware and software recommendations. For more information, refer to Hardware and Software Recommendations on page 1.
   - The operation system is CentOS 7.0 or later.

     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 in 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 and then click **Power on**.
4. Click the thumbnail to enter the interface of CentOS.



The installation of 10.23.0.40 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:

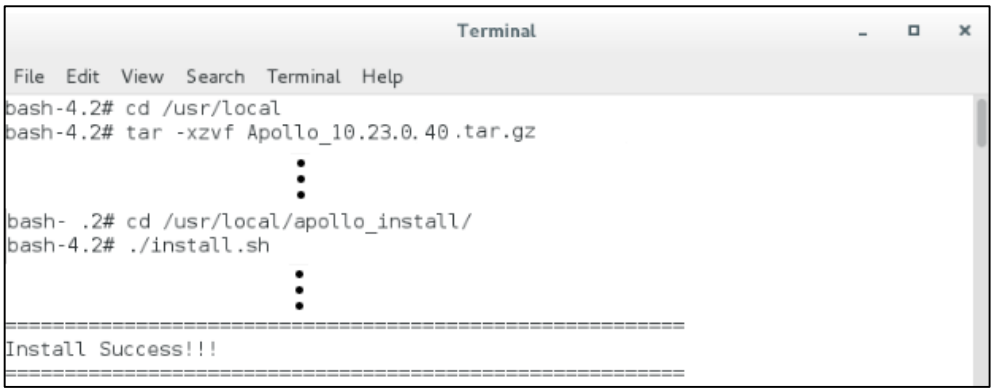
   cd /usr/local

   tar -xzvf Apollo_10.23.0.40.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:

Setup Wizard

Installing Yealink Meeting Server by Importing OVA/OVF Files

Before you begin

1. Check the following points:

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

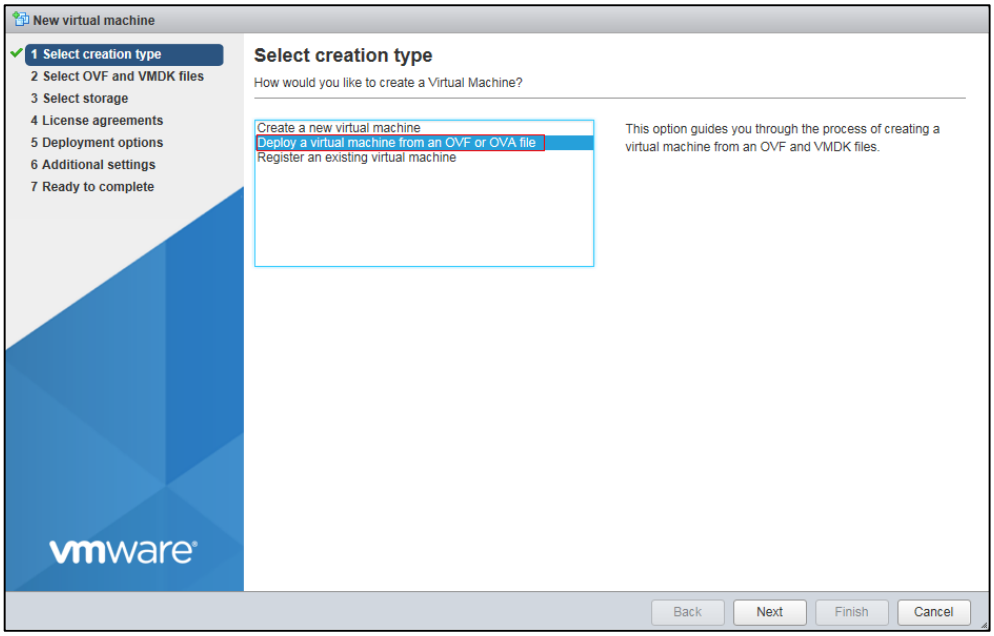
Feature	Description
Type	• VMware ESXi 6.5 or later • Microsoft Hyper-V Server 2012 or later

   - 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:

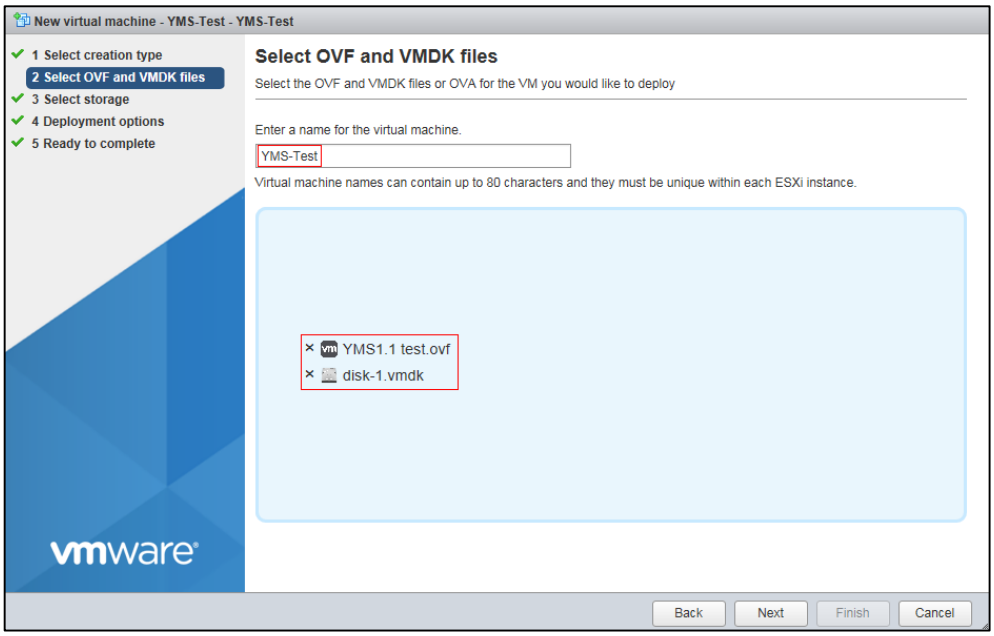
1. Log into the ESXi host.
2. Click **Host** in the **Navigator**, and then select **Create/Register VM** to create a virtual machine.

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



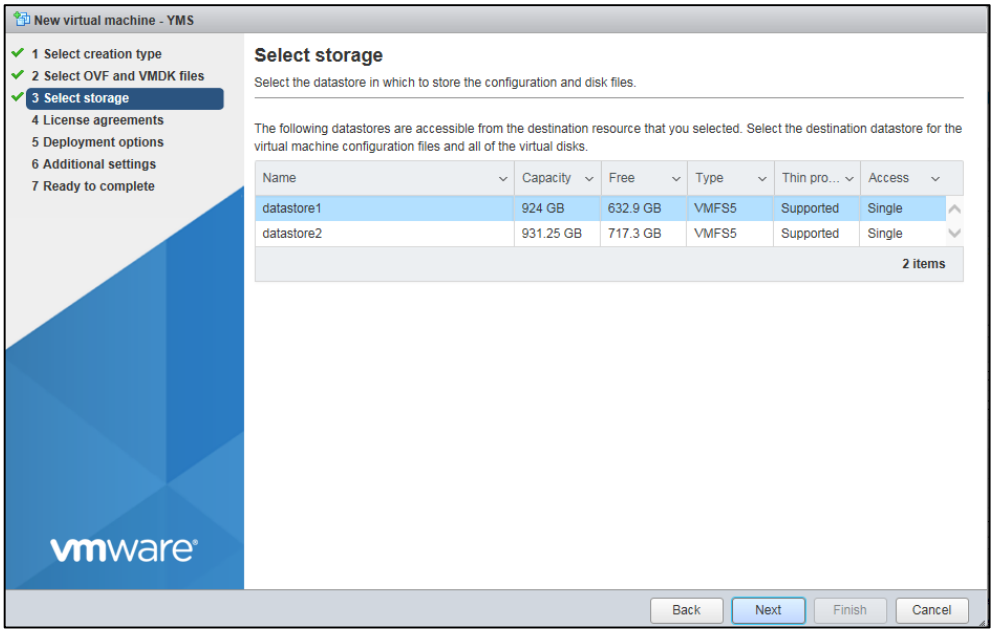
4. Click **Next** to continue.

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

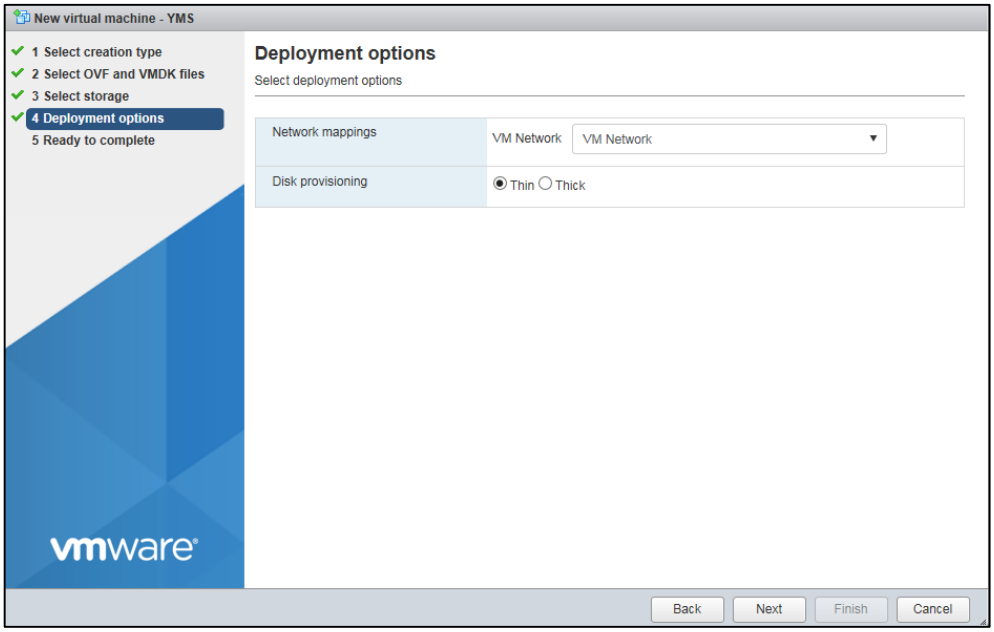


(Take the OVF and VMDK file as an example)

6. Click **Next** to continue.

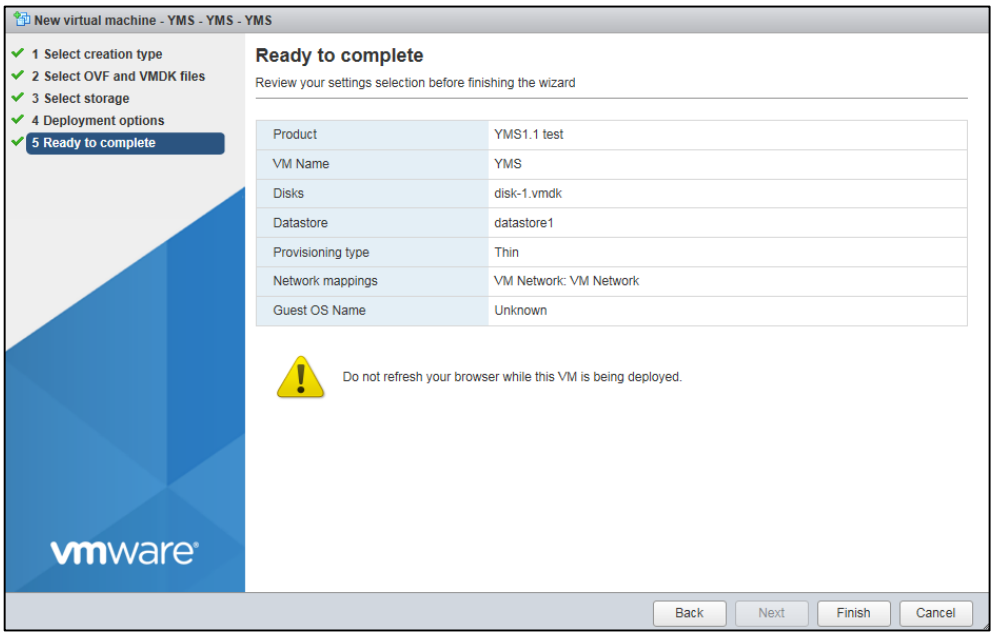


7. Select the default destination datastore for the virtual machine configuration files and all of the virtual disks.
8. Click **Next** to continue.



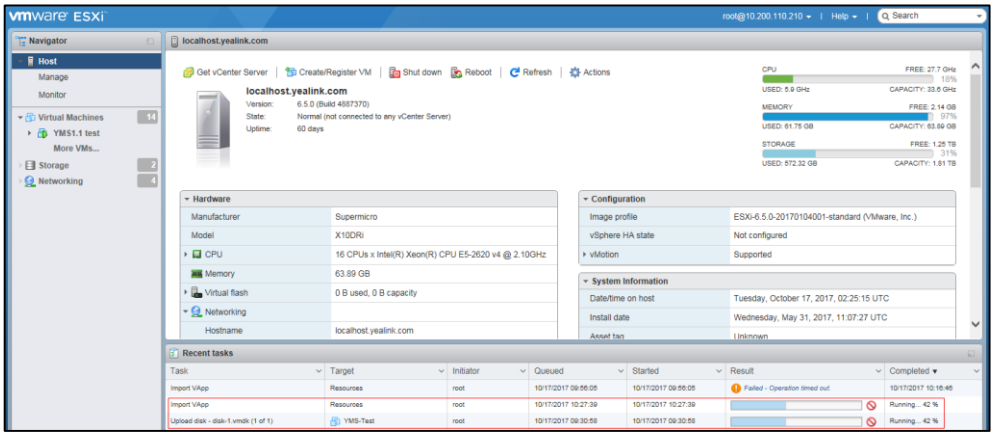
9. Select **VM Network** from the pull-down list of **VM Network**, and then mark the radio box of **Thin** in the **Disk provisioning** field.

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, you finish the installation.

12. Click **Virtual Machines** in the **Navigator**.
13. Check the checkbox besides the virtual machine you created, and then click **Power on**.
14. Click the thumbnail to enter the interface of virtual machine.
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:

Setup Wizard

Setup Wizard

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

Before you begin

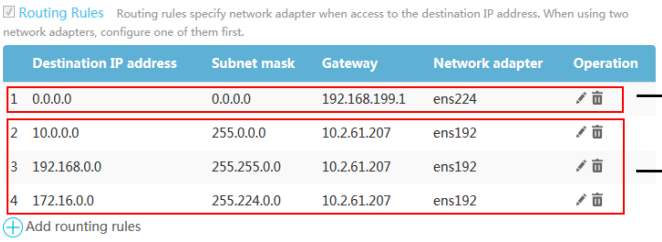
1. Review port forwarding requirements.
2. Install the YMS.

To complete the 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 server IP address to log in.



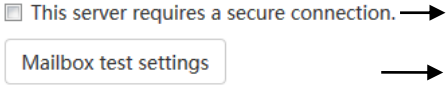
Specify routing rules for external network.

Specify routing rules for all network segments in your enterprise.

2. Set the date and time (e.g., set the time zone and enable the daylight saving time).
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 license number to activate enterprise administrator account.
5. Set SMTP mailbox.

   The email is used to send account information, send invitations to conference and so on.



Enable connection security

Enter test email to test whether the SMTP mailbox you set is available.

6. Click **OK** to complete the setup wizard.

Related topics:

Port Forwarding Requirements

Yealink Meeting Server Installation

Typical Network Deployment Methods

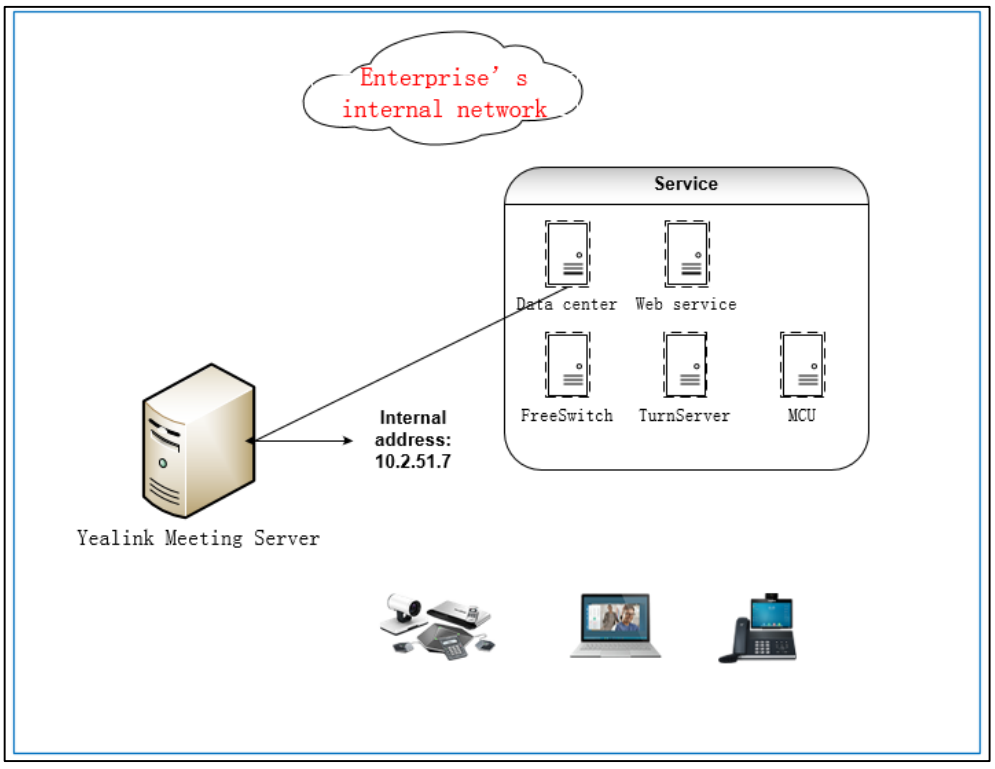
The YMS supports two network adapters, you can configure the network in setup wizard based on the actual enterprise network condition.

This chapter provides 5 typical network deployment methods.

Topic includes:

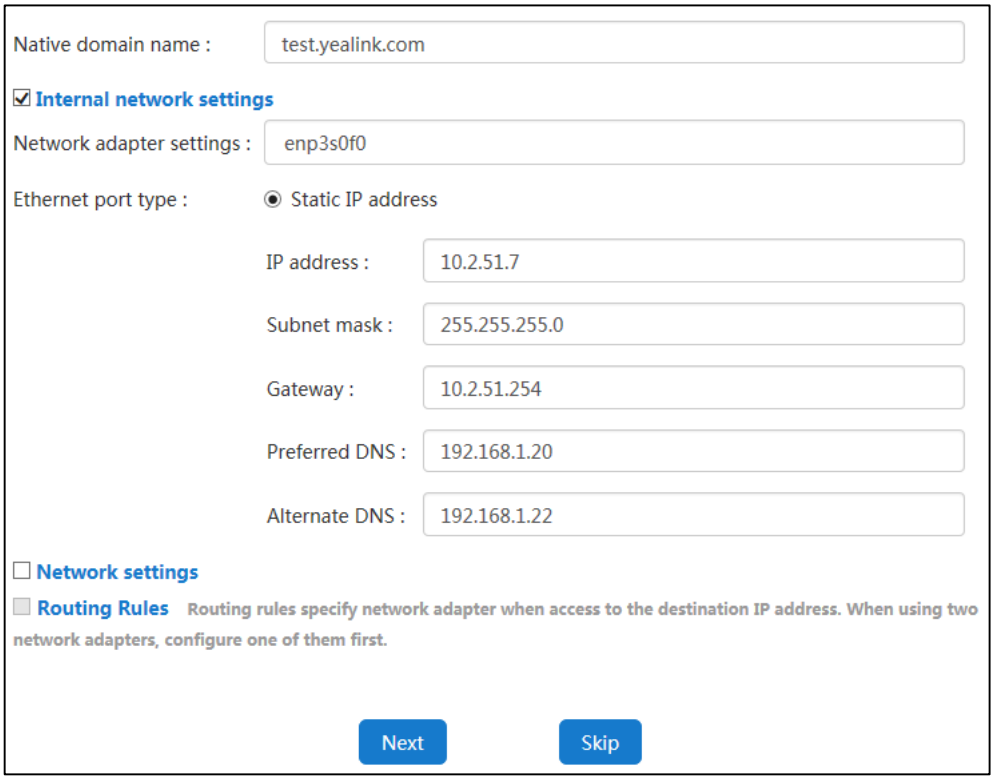
Scenario 1: A Single Network Adapter Deployment in Internal Network

If you register YMS accounts, place a point to point single call or participant in video conference in the internal network, you can deploy the server in internal network by using single network adapter. For example, you can deploy the server in some private network. You just need configure the internal network adapter via YMS to finish the deployment.



To configure network settings via YMS:

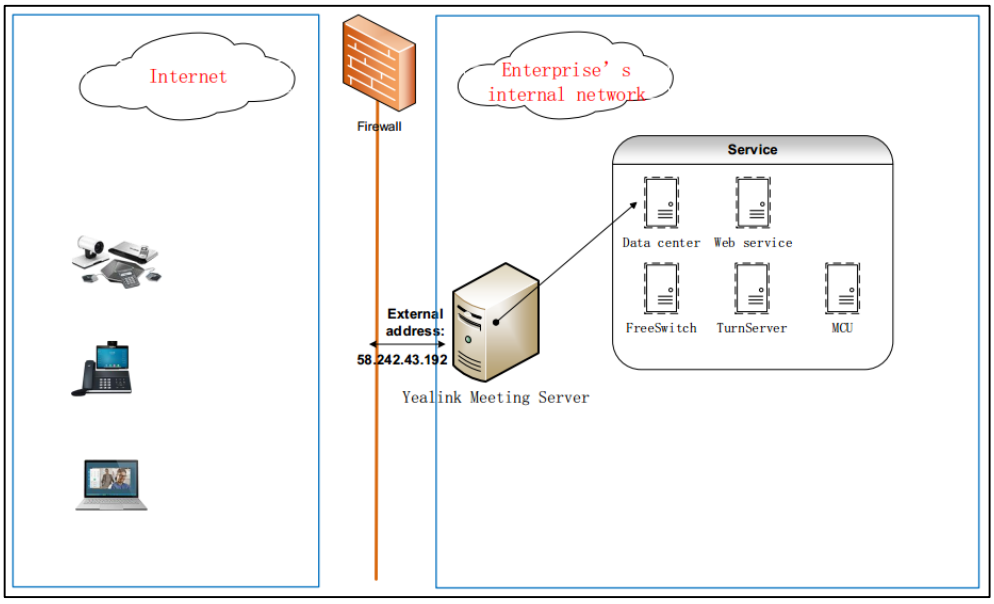
1. In the setup wizard, configure network settings.



2. Click **Next** to save the network settings and continue the process of setup wizard.

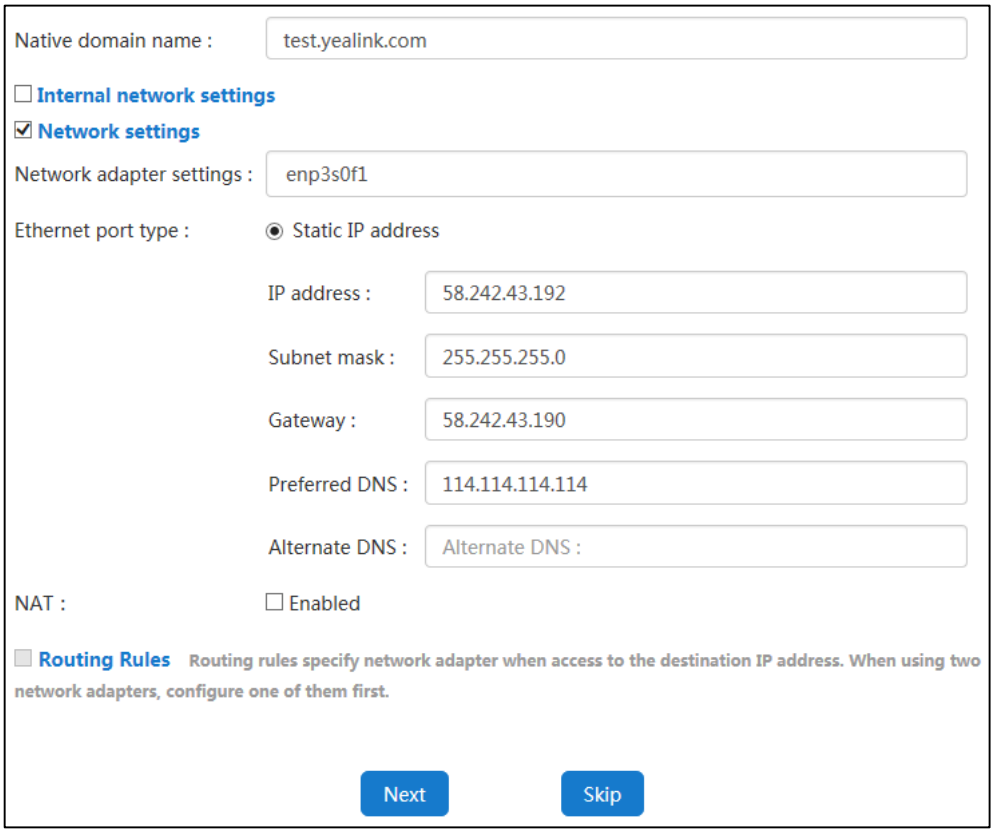
Scenario 2: A Single Network Adapter Deployment in External Network

If you register YMS accounts, place a point to point single call or participant in video conference in the external network, you can deploy the server in public network by using single network adapter. You just need configure the external network adapter via YMS to finish the deployment.



To configure network settings via YMS:

1. In the setup wizard, configure network settings.

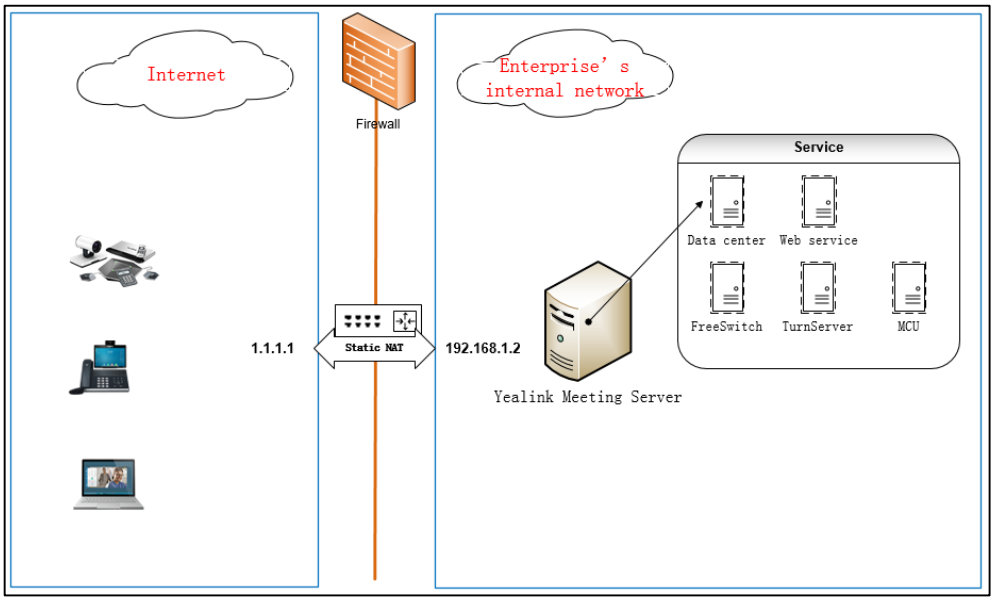


2. Click **Next** to save the network settings and continue the process of setup wizard.

Scenario 3: A Single Network Adapter and Static NAT Deployment

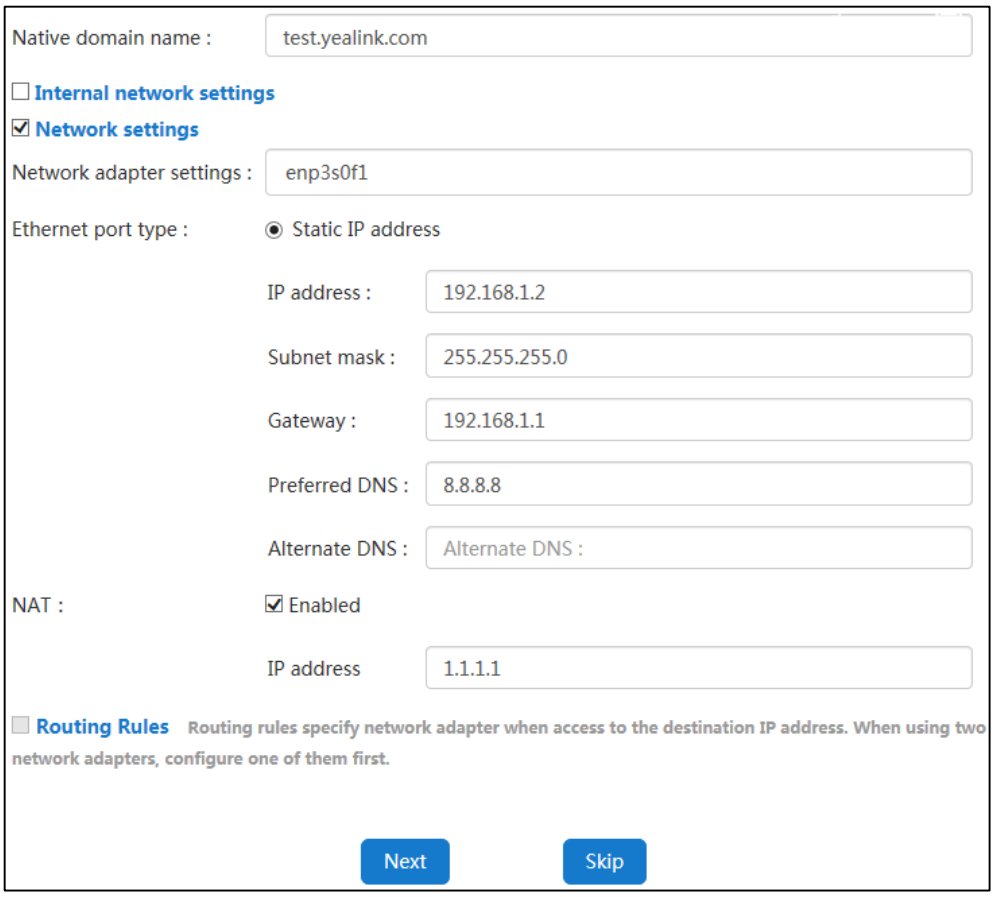
If the YMS is deployed in internal network, while you are in the external network. To solve the interconnection problem between internal and external network, you should configure static NAT on the router to ensure you can access the server. According to the configuration on the router, you configure the external network adapter via YMS to finish the deployment.

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



To configure network settings via YMS:

1. In the setup wizard, configure network settings.

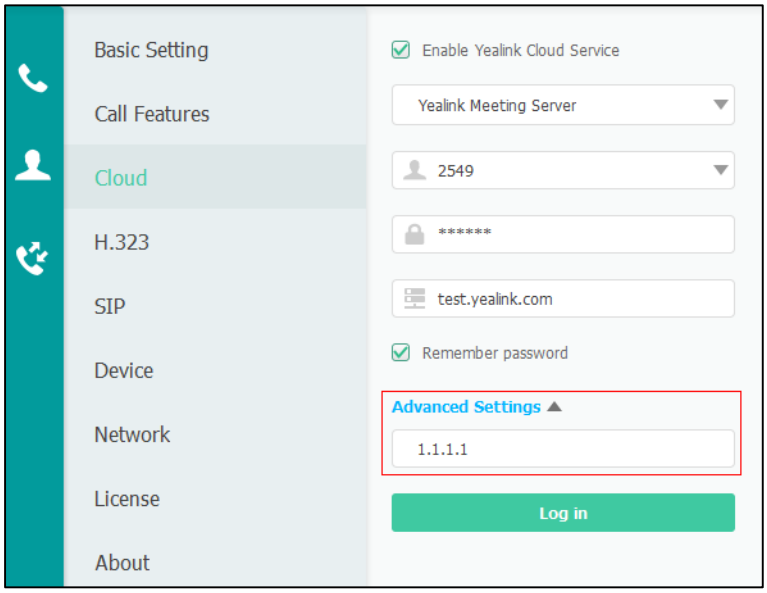


2. Click **Next** to save the network settings and continue the process of setup wizard.

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

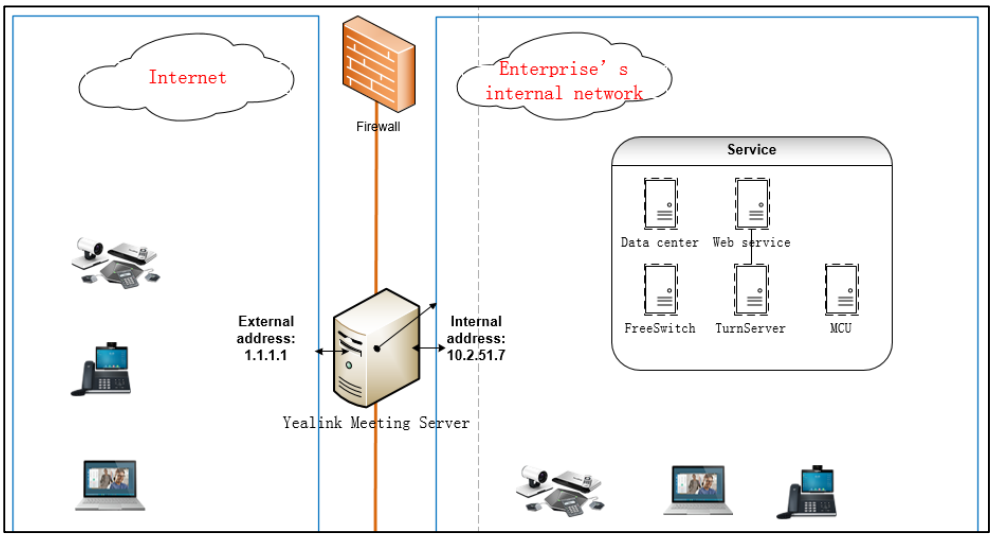
Dual network adapters are mainly applied to enterprise network. It means both internal network users and external network users can access the YMS. To ensure the internal network endpoints or external network endpoints can access the server, the domain name of YMS should be resolved to the IP address of internal network and the IP address of external network separately.

The process is that DNS (domain name system) in internal network resolve the domain name of YMS to IP address in internal network. And DNS in external network resolve the domain name to IP address in external network. If the domain name of YMS is not resolved to the IP address of internal network and the IP address of external network, you need manually enter the IP address of YMS in the outbound server address field to register YMS accounts.



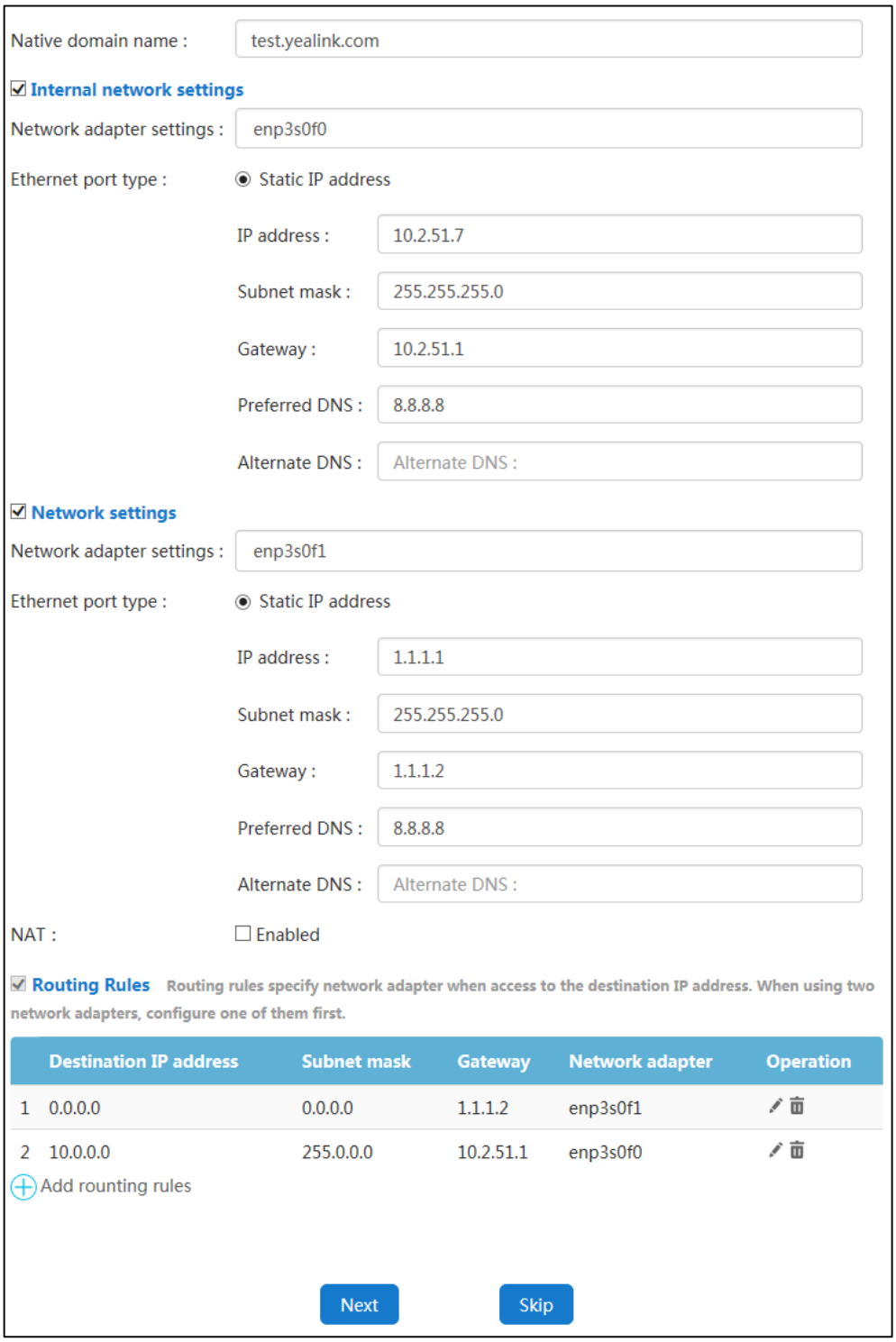
(Users in external network register YMS accounts via Yealink VC Desktop)

Note This deployment does not support the IP address of endpoint uses public network segments.



To configure network settings via YMS:

1. In the setup wizard, configure network settings.

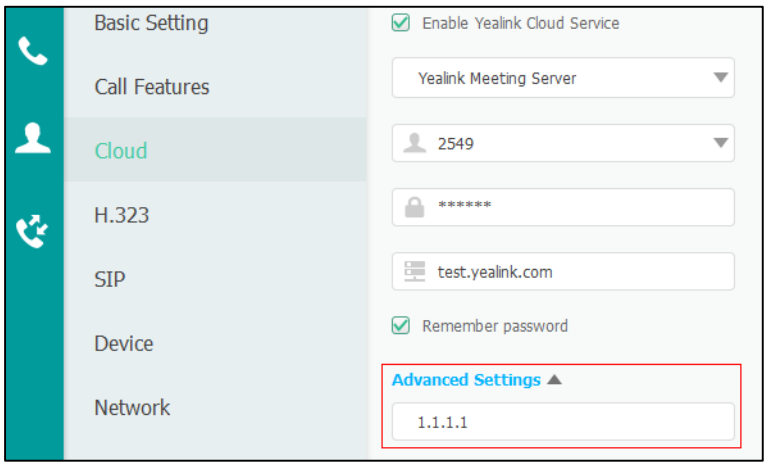


2. Click **Next** to save the network settings and continue the process of setup wizard.

Scenario 5: Dual Network Adapters Deployment: Internal Network+ Static NAT

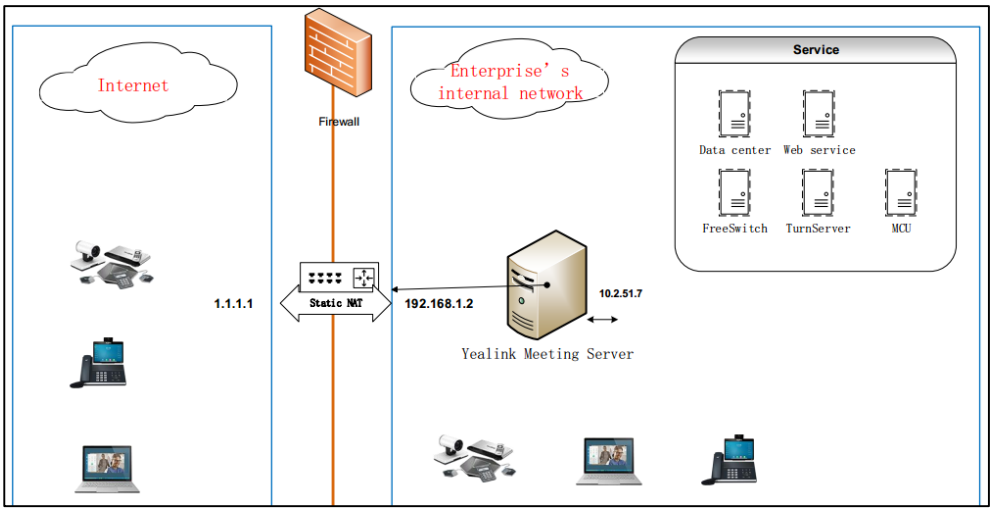
Dual network adapters are mainly applied to enterprise network. It means both internal network users and external network users can access the YMS. To ensure the internal network endpoints or external network endpoints can access the server, the domain name of YMS should be resolved to the IP address of internal network and the IP address of external network separately.

The process is that DNS (domain name system) in internal network resolve the domain name of YMS to IP address in internal network. And DNS in external network resolve the domain name to IP address in external network. Note that you should solve the interconnection problem between private and public network in advance by port forwarding. Besides, the private IP address of YMS is forwarded to a public IP address on the router. If the domain name of YMS is not resolved to the IP address of internal network and the IP address of external network, you need manually enter the IP address of YMS in the outbound server address field to register YMS accounts.



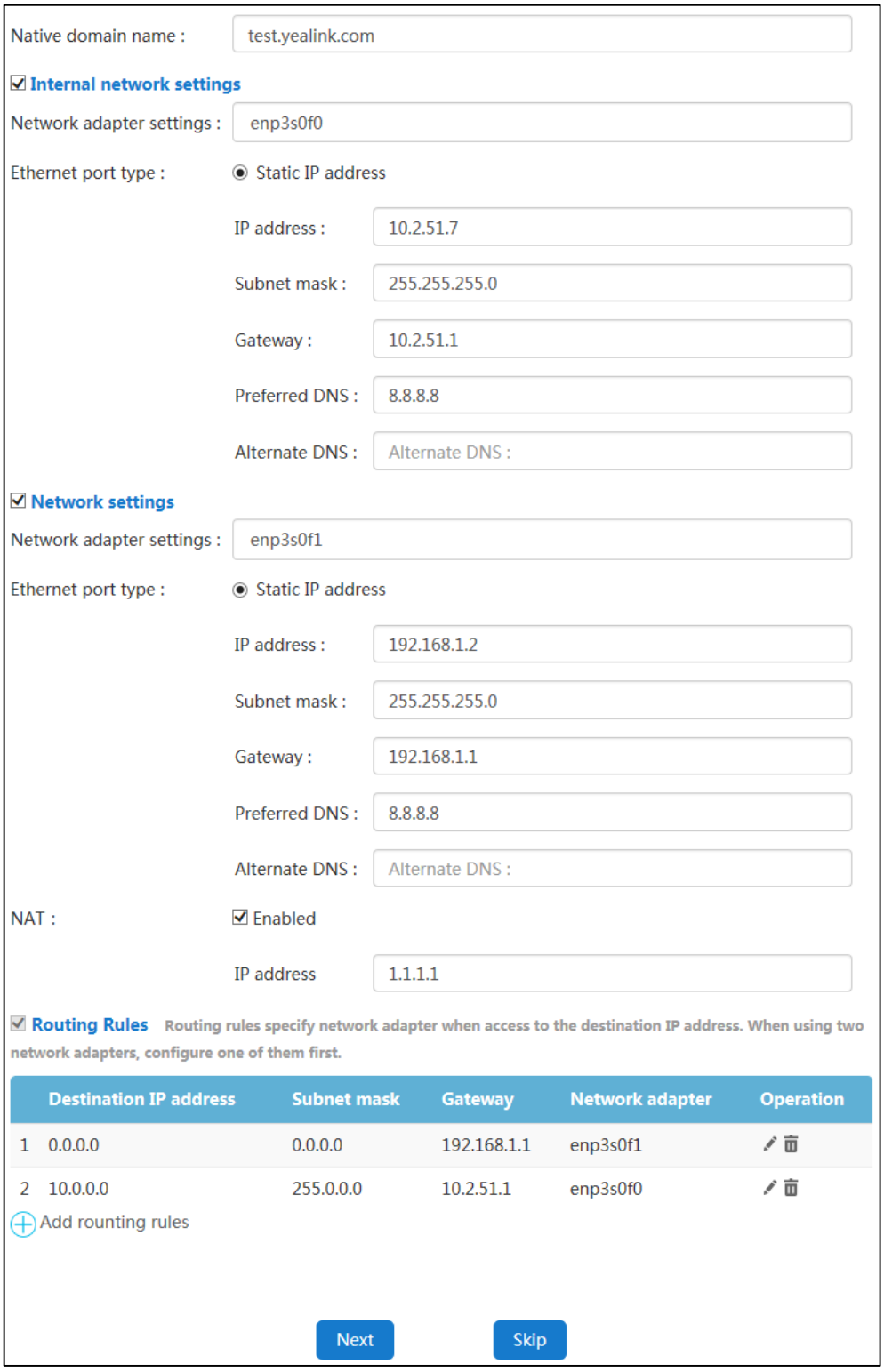
(Users in external network register YMS accounts via Yealink VC Desktop)

Note Dual network adapters are internal network adapters. If the YMS and endpoints are not in the same LAN, the IP address of endpoint cannot use public network segments.



To configure network settings via YMS:

1. In the setup wizard, configure network settings.



2. Click **Next** to save the network settings and continue the process of setup wizard.