



Yealink Meeting Server Installation Guide

About This Guide

This guide introduces how to install the YMS software.

YMS installation method includes stand-alone installation or cluster installation.

The differences between them are described as below:

Type	Description
Stand-Alone installation	One stand-alone YMS but with all services.
Cluster installation	<p>Multiple YMSs, including the following node types:</p> <ul style="list-style-type: none"> • Master node: it includes all the YMS services. • Sub-master node: if you want to realize the disaster recovery for all features, it must contain 2 sub-master nodes. • Business node: you can distribute the desired service on each business node according to the enterprise deployment need. The services contain SIP service, MCU service and so on.

Hardware Recommendations

When deploying YMS, you should meet the following server recommendations, so that YMS can run properly.

Hardware Recommendations for Virtualization Deployment

If you install YMS in the virtual environment, you should familiarize yourself with the following recommendations first.

Concurrent capacity(1080P)	Concurrent capacity(720P)	CPU Model	GHZ	CPU Amount	VCore Amount	RAM	Disk	Concurrent capacity(720P)	Remarks		
10	20	Xeon(R) Platinum 8163 CPU	2.5GHZ	1	12	24G		18	formula=2.5*12*0.6*1		
		Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	1	10	20G		17			
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	1	10	20G		18			
20	40	Xeon(R) Platinum 8163 CPU	2.5GHZ	1	24	48G		36	formula=2.9*16*0.6*2		
		Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	1	20	40G		34			
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	1	20	40G		37			
30	60	Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	2	16	32G		55			
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	16	32G		59			
		Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	2	20	40G		69			
40	80	Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	20	40G		74			
		50	100	Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	24	48G			89
				Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	2	32	64G			111
60	120			Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	32	64G		119	
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	16	32G		59	this two server cluster deployment		
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	16	32G		59			
70	140	Intel(R) Xeon(R) CPU E5-2666 v3	2.9GHZ	2	20	40G		69	this two server cluster deployment		
		Intel(R) Xeon(R) Gold 6149 CPU	3.1GHZ	2	20	40G		74			
more	more	Cluster deployment									

Note

Concurrent capacity = GHZ * VCPU amount * 0.6.

The amount of VCPU is the VCPU you assigned to this VM rather than the total capability of the CPU. We recommend 300G Disk for formal deployment. For internal testing of YMS2.0, you can use 100G.

The VCPU resource assigned to this YMS server must not be occupied by other service in any case, otherwise the concurrent call cannot reach the number we write.

Recording consumes some hardware resources of video call, that is, one 720p recording consumes one 720P concurrent call capability.

Hardware Recommendations for Non-Virtualization

Deployment

Hardware Recommendations of Intel E5

If you use Intel E5 to install YMS 2.0, you should familiarize yourself with the following recommendations first.

CPU Model	GHZ	CPU Amount	Core Amount	RAM	Concurrent capacity	Concurrent capacity
					(People 720p30fps+Content sharing 1080p5fps+SRTP)	(People 1080p30fps+Content sharing 1080p5fps+SRTP)
E5-2620 v3	2.4GHz	1	6	4*8G (2133MHz)	17	8
E5-2620 v3	2.4GHz	2	12	8*8G (2133MHz)	34	16
E5-2620 v4	2.1GHz	1	8	4*8G (2400MHz)	20	10
E5-2620 v4	2.1GHz	2	16	8*8G (2400MHz)	40	20
E5-2660 v3	2.6GHz	1	10	4*8G (2133MHz)	31	15
E5-2660 v3	2.6GHz	2	20	8*8G (2133MHz)	62	30
E5-2680 v4	2.4GHz	1	14	4*8G (2400MHz)	40	20
E5-2680 v4	2.4GHz	2	28	8*8G (2400MHz)	80	40
E5-2695 v4	2.1GHz	2	36	8*8G (2400MHz)	92	46
E5-2699 V4	2.2GHz	2	44	8*8G (2400MHz)	116	58

Note

Concurrent capacity = GHZ * Cores amount * 1.2.

The RAM should be installed as 8G each, E5 V3 CPU frequency 2133MHz, E5 V4 CPU frequency 2400MHz.

Hardware Recommendations of Intel Silver & Gold

If you use Intel Silver & Gold to install YMS 2.0, you should familiarize yourself with the following recommendations first.

CPU Model	GHZ	CPU Amount	Core Amount	RAM	Concurrent capacity	Concurrent capacity
					(People 720p30fps+Content sharing 1080p5fps+SRTP)	
Intel Xeon Silver 4114	2.1GHz	1	8	6*8G (2400MHz)	20	10
Intel Xeon Silver 4114	2.1GHz	2	16	12*8G (2400MHz)	40	20
Intel Xeon Silver 4116	2.1GHz	1	12	6*8G (2400MHz)	30	15
Intel Xeon Silver 4116	2.1GHz	2	24	12*8G (2400MHz)	60	30
Intel Xeon Gold 6132	2.6GHz	1	14	6*8G (2666MHz)	40	20
Intel Xeon Gold 6132	2.6GHz	2	28	12*8G (2666MHz)	80	40
Intel Xeon Gold 6152	2.1GHz	1	22	6*8G (2666MHz)	50	25
Intel Xeon Gold 6152	2.1GHz	2	44	12*8G (2666MHz)	100	50

Note

Concurrent capacity =GHZ*Cores amount *1.2.

The RAM should be installed as 8G each, RAM frequency for silver CPU should be 2400MHz, RAM frequency for Gold CPU should be 2666MHz.

In This Guide

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Chapter 2 [Uninstalling YMS 1.X](#)

Chapter 3 [YMS Stand-Alone Installation](#)

Chapter 4 [Expanding the Stand-Alone YMS](#)

Chapter 5 [Installing the Cluster YMS](#)

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Creating a Data Backup for YMS 1.X

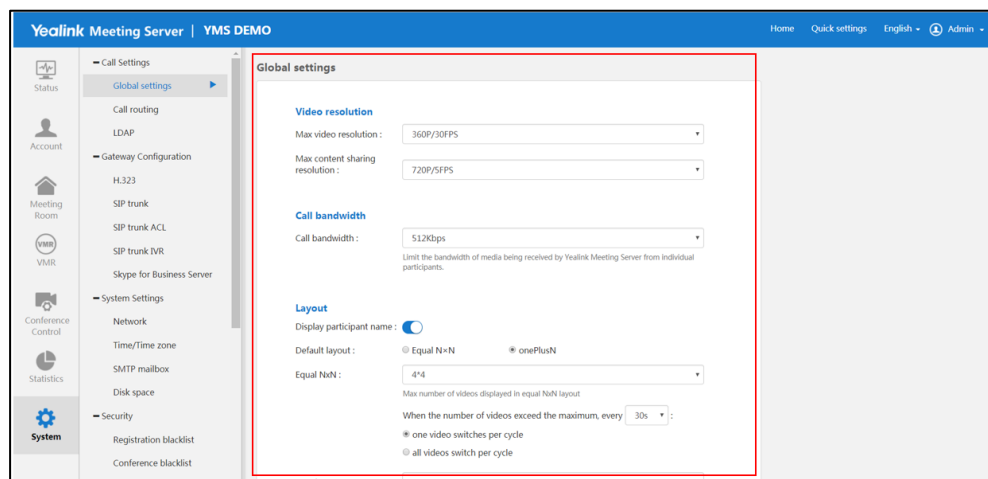
If you use YMS 1.X, you need make a data backup first. Because when you upgrade YMS 1.X to YMS 2.0, you need uninstall YMS 1.X and the data on it will be deleted.

After the data backup, please contact Yealink to do the data migration.

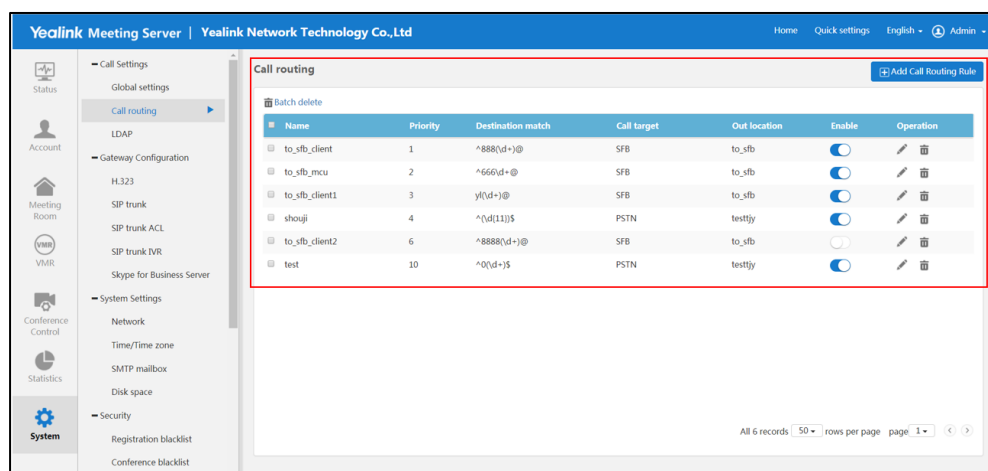
Saving the Important Data by Screenshot

We recommend that you save the following configuration by screenshot:

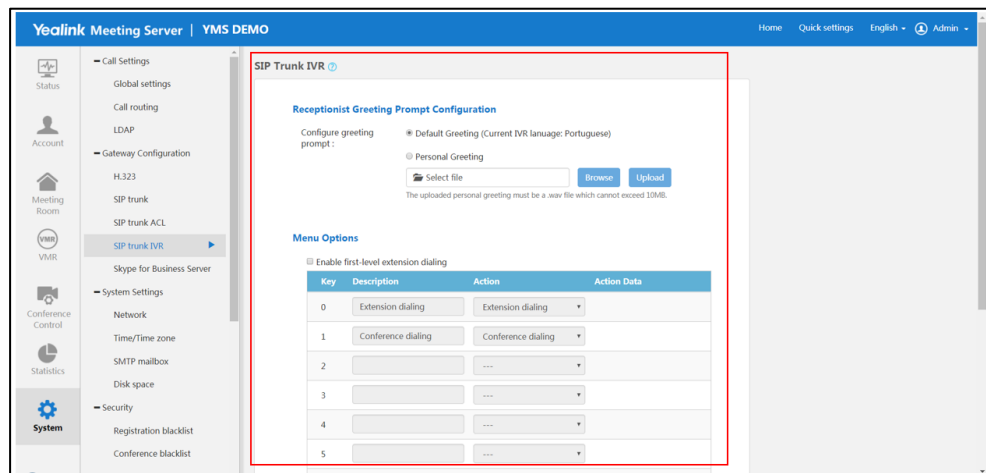
- Click **System->Call Settings->Global settings**, and take screenshots of the entire configuration.



- Click **System->Call Settings->Call routing**, and take screenshots of the entire configuration.



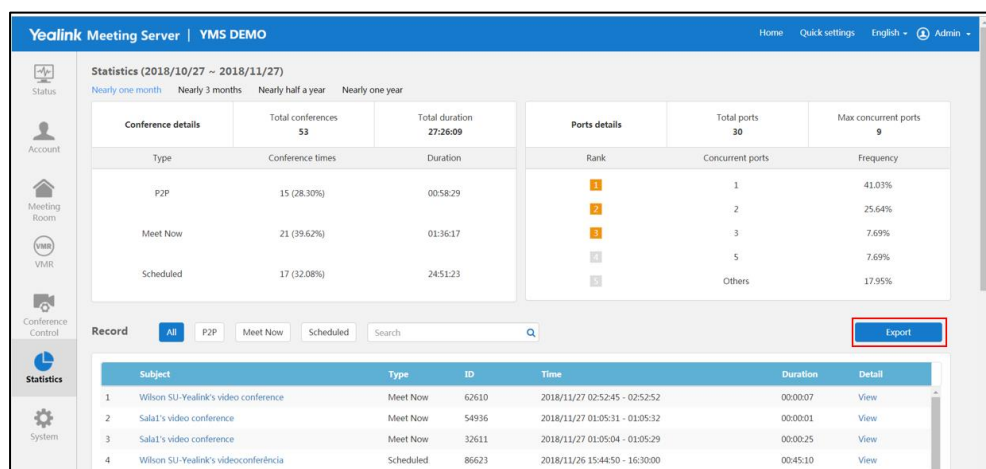
- Click **System->Gateway Configuration->SIP trunk IVR**, and take screenshots of the entire configuration.



Exporting All Call Statistics

Procedure:


- Click **Statistics->Export**.

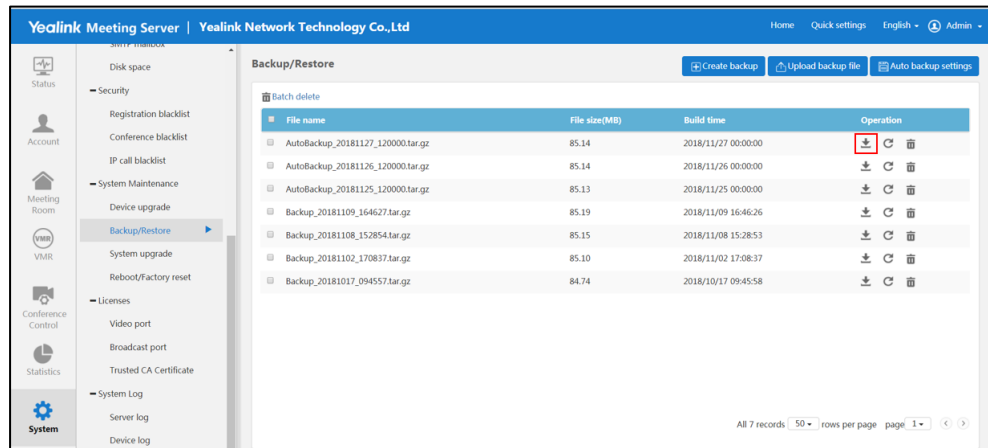


Making a Backup for the System Data

Make sure there is no ongoing conferences before making the backup.

Procedure:

1. Click **System->System Maintenance->Backup/Restore->Create Backup**.
2. Click  on the right side of the created backup to download it to your computer.



Uninstalling YMS 1.X

If you use YMS 1.X, you need uninstall it before installing YMS 2.0.

Procedure (log into CentOS as the root):

1. Open Terminal.
2. Do one of the following:
 - If the server can access the external network, run the command below:

```
curl -O  
https://download.yealinkops.com/support/YMS/YMS1.4_Uninstall/apollo_util.sh  
chmod u+x apollo_util.sh  
./apollo_util.sh uninstall 11055011 no
```
 - If the server cannot access the external network, do the following:
 - a. Click https://download.yealinkops.com/support/YMS/YMS1.4_Uninstall/apollo_util.sh to download the script for uninstalling.
 - b. Upload the script to /root on CentOS via lrzsz, and use SecureCRT to go to CentOS via SSH and then run the following command:

```
cd /root  
rz
```

Select the script for uninstalling
 - c. Run the command below:

```
chmod u+x apollo_util.sh  
./apollo_util.sh uninstall 11055011 no
```


YMS Stand-Alone Installation

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

- [Installing the Stand-Alone YMS with the Existing CentOS](#)
- [Installing YMS by Importing OVA/OVF Files](#)

Installing the Stand-Alone YMS with the Existing CentOS

Before you begin:

If the installation environment cannot access the external network, we recommend that you use CentOS 7.5 or later. If it can access the external network, the operating system can be CentOS 7.0 or later.

Procedure:

1. Put the installation package in the path of /usr/local under CentOS root directory.

For example, upload the file to CentOS by using lrzsz, and you can do the following:

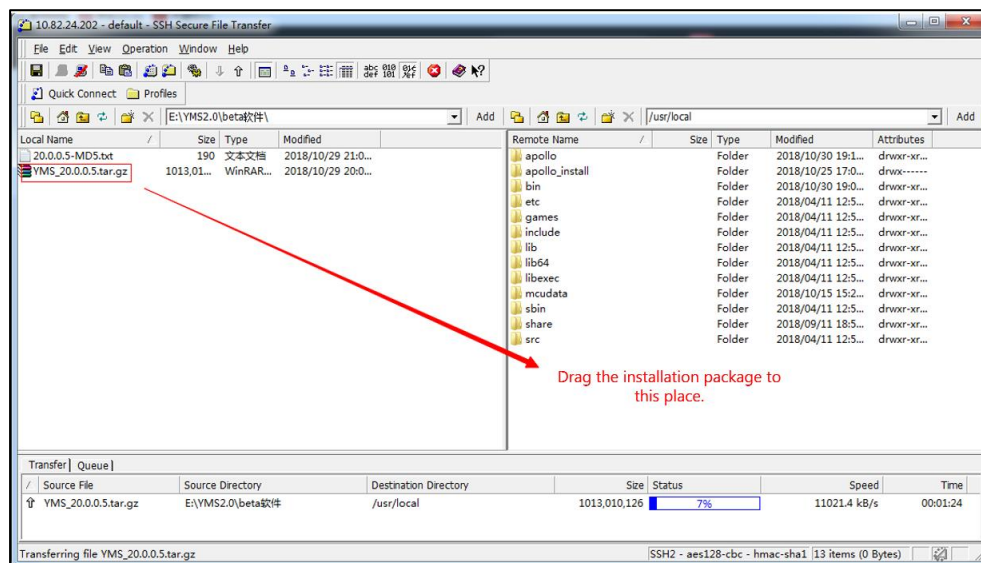
Use SecureCRT to go to CentOS via SSH and run the command below:

```
yum -y install lrzsz
```

```
cd /usr/local
```

```
rz
```

Select the installation package you want to upload.



2. Use SecureCRT to go to CentOS via SSH and run the command below:

```
cd /usr/local
tar xvfz YMS_21.0.0.10.tar.gz
cd apollo_install
tar xvfz install.tar.gz
./install.sh
```

3. Enter A to select stand-alone installation.

If you do not select within 30 seconds, the system will select the stand-alone installation automatically. The installation will be finished in about 10 minutes. Please wait.

```
10.82.24.202 (1)
omcrypt-1.17-26.el7.x86_64
/usr/local/apollo/ansible/rpm/libtomcrypt-1.17-26.el7.x86_64.rpm: does not update installed package.
Examining /usr/local/apollo/ansible/rpm/libtommath-0.42.0-6.el7.x86_64.rpm: libtommath-0.42.0-6.el7.x86_64
/usr/local/apollo/ansible/rpm/libtommath-0.42.0-6.el7.x86_64.rpm: does not update installed package.
Examining /usr/local/apollo/ansible/rpm/libyaml-0.1.4-11.el7_0.x86_64.rpm: libyaml-0.1.4-11.el7_0.x86_64
/usr/local/apollo/ansible/rpm/libyaml-0.1.4-11.el7_0.x86_64.rpm: does not update installed package.
Examining /usr/local/apollo/ansible/rpm/sshpass-1.06-2.el7.x86_64.rpm: sshpass-1.06-2.el7.x86_64
/usr/local/apollo/ansible/rpm/sshpass-1.06-2.el7.x86_64.rpm: does not update installed package.
Nothing to do

Default profile /usr/local/apollo/data/install.conf does not exist.
please make a choice:
!!! timeout 30 seconds, timeout default is [A].
  [A]. Deploy all in one with default 127.0.0.1
  [B]. Create default profile and then exit to edit it
Please Input your choice: A
```

The installation succeeds if the page displays the following part:

```
PLAY RECAP *****
manager-master : ok=1249 changed=582 unreachable=0 failed=0
```

Installing YMS by Importing OVA/OVF Files

Before you begin

You should check the following points:

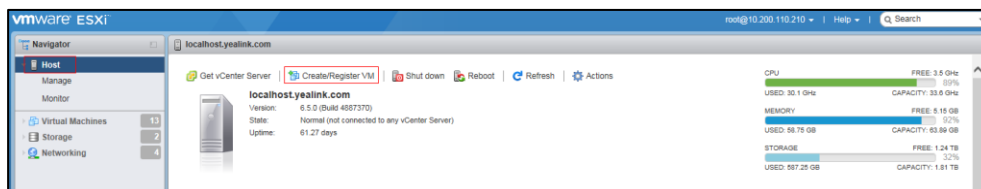
- If you want to install YMS to a virtual machine, the following types of virtual machine are recommended:

Feature	Description
Type	<ul style="list-style-type: none"> • VMware ESXi 6.5 or later • Microsoft Hyper-V Server 2012 or later

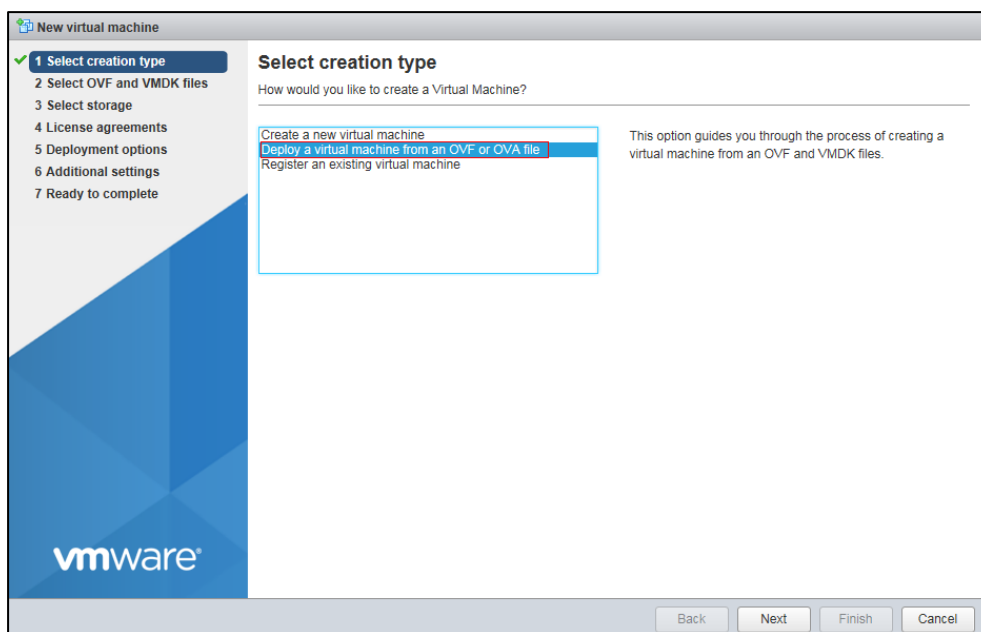
- You can obtain the YMS setup file from the Yealink distributor or Yealink technical support engineer, and the YMS setup file contains the OVF and VMDK file or OVA file.

Procedure:

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

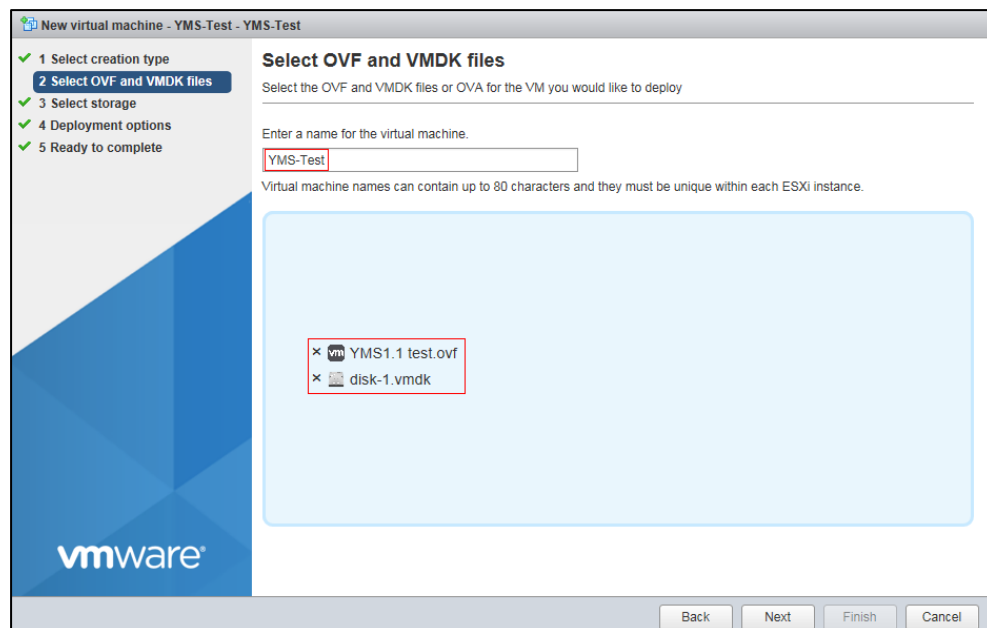


3. Select **Deploy a virtual machine from an OVF or OVA file**.



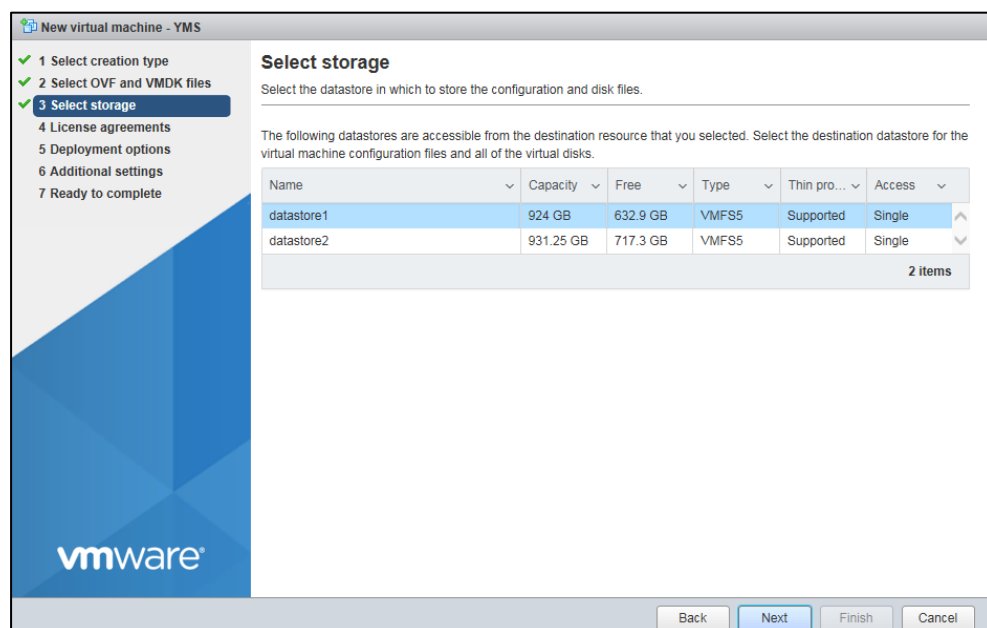
4. Click **Next** to continue.

- 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)

- Click **Next** to continue.



- Select the default destination datastore for the virtual machine configuration files and all of the virtual disks.

8. Click **Next** to continue.

The screenshot shows the 'New virtual machine - YMS' wizard. On the left, a progress bar indicates five steps: 1 Select creation type, 2 Select OVF and VMDK files, 3 Select storage, 4 Deployment options (highlighted), and 5 Ready to complete. The main area is titled 'Deployment options' with the subtitle 'Select deployment options'. It contains two sections: 'Network mappings' with a dropdown menu set to 'VM Network', and 'Disk provisioning' with radio buttons for 'Thin' (selected) and 'Thick'. At the bottom right are buttons for 'Back', 'Next', 'Finish', and 'Cancel'.

9. Select **VM Network** from the drop-down menu of **VM Network**, and then select **Thin** in the Disk provisioning field.

10. Click **Next** to continue.

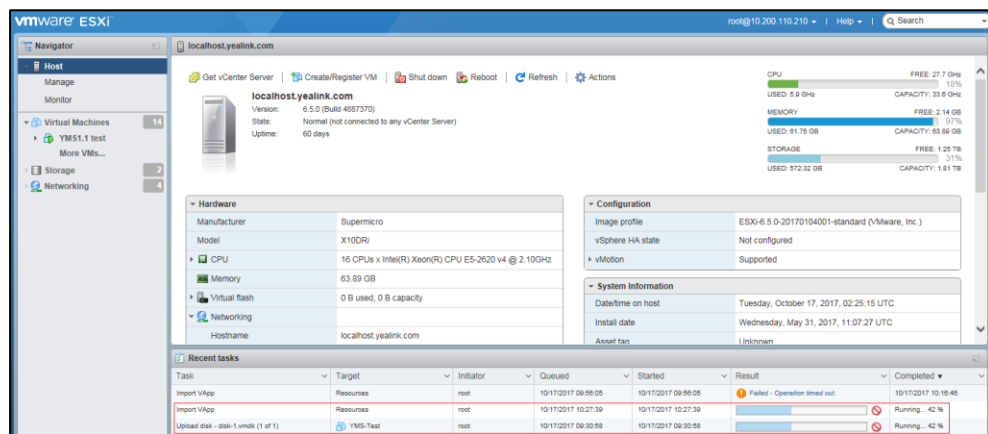
The screenshot shows the 'New virtual machine - YMS - YMS - YMS' wizard. The progress bar on the left now highlights step 5 'Ready to complete'. The main area is titled 'Ready to complete' with the subtitle 'Review your settings selection before finishing the wizard'. It displays a table of settings:

Product	YMS1.1 test
VM Name	YMS
Disks	disk-1.vmdk
Datastore	datastore1
Provisioning type	Thin
Network mappings	VM Network: VM Network
Guest OS Name	Unknown

Below the table is a yellow warning icon and the text: 'Do not refresh your browser while this VM is being deployed.' At the bottom right are buttons for 'Back', 'Next', 'Finish', and 'Cancel'.

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.

Expanding the Stand-Alone YMS

For the stand-alone YMS, if you want to strengthen its MCU by making it become 1+N (N can be 1.2.3.4.5.6.....) with one master node and N business nodes, you can expand your YMS.

Before you begin:

- If the installation environment cannot access the external network, we recommend that you use CentOS 7.5 or later. If it can access the external network, the operating system can be CentOS 7.0 or later.
- The network among all of the nodes can be accessed. We recommend that all of the nodes can access the external network.
- YMS is not installed in all the business nodes.

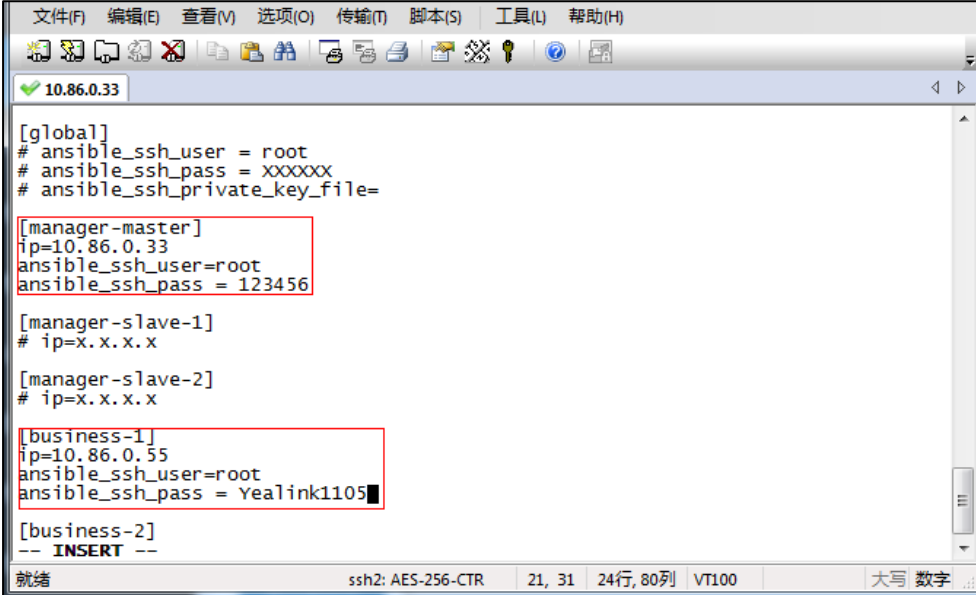
Procedure:

1. Use SecureCRT to log into CentOS via SSH to run the following command:

```
vi /usr/local/apollo/data/install.conf
```

2. Enter A to edit the configuration file.

For example, set 10.86.0.33 as the master node, and 10.86.0.55 as the business node.



```

文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H)
10.86.0.33
[global]
# ansible_ssh_user = root
# ansible_ssh_pass = xxxxxx
# ansible_ssh_private_key_file=
[manager-master]
ip=10.86.0.33
ansible_ssh_user=root
ansible_ssh_pass = 123456
[manager-slave-1]
# ip=x.x.x.x
[manager-slave-2]
# ip=x.x.x.x
[business-1]
ip=10.86.0.55
ansible_ssh_user=root
ansible_ssh_pass = Yealink1105
[business-2]
-- INSERT --
就绪 ssh2: AES-256-CTR 21, 31 24行, 80列 VT100 大写 数字

```

3. Press Esc to exit, and run the following command:

```
:wq
cd /usr/local/apollo_install
./install.sh
```

The installation succeeds if the page displays the following part:

```
PLAY RECAP *****
business-1      : ok=609  changed=291  unreachable=0    failed=0
business-2      : ok=609  changed=291  unreachable=0    failed=0
manager-master  : ok=1126 changed=541  unreachable=0    failed=0
```

Installing the Cluster YMS

There are two plans for installing cluster YMS:

Plan A: 1+N (N can be 1.2.3.4.5.6.....) , 1 master node and N business nodes. It does not have the disaster recovery feature, but it has multiple business nodes, with good service capability and low coupling.

Plan B: 3+N (N can be 1.2.3.4.5.6.....) , 1 master node, 2 sub-master nodes, and N business nodes. It has disaster recovery feature (multi-machine backup feature).

Note that, there is no 2+N plan, that is 1 master node, 1 sub-master node and N business nodes. Because the sub-master node cannot be installed successfully, which makes it have the same effect as the plan A.

Before you begin:

- If the installation environment cannot access the external network, we recommend that you use CentOS 7.5 or later. If it can access the external network, the operational system can be CentOS 7.0 or later.
- The network among all of the nodes can be accessed. We recommend that all of the nodes can access the external network.
- YMS is not installed in all the business nodes.

Procedure:

1. Put the installation package in the path of /usr/local of the master node.

For example, upload the file to CentOS by using lrzsz, and you can do the following:

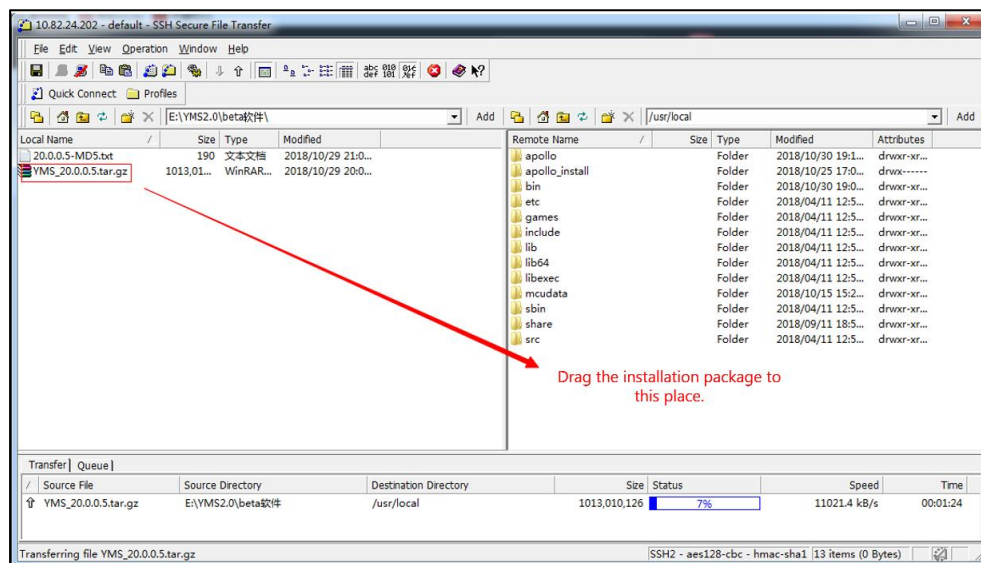
Use SecureCRT to go to CentOS via SSH and run the command below:

```
yum -y install lrzsz
```

```
cd /usr/local
```

```
rz
```

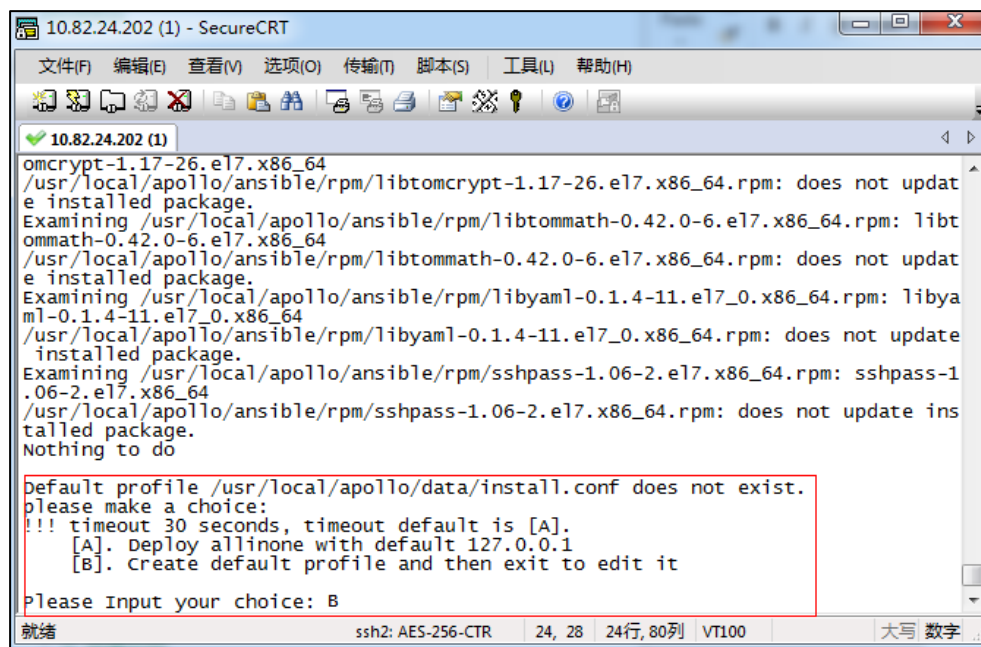
Select the installation package you want to upload.



2. Use SecureCRT to go to CentOS via SSH and run the following command:

```
cd /usr/local
tar xvfz Apollo_21.0.0.10.tar.gz
cd apollo_install
tar xvfz install.tar.gz
./install.sh
```

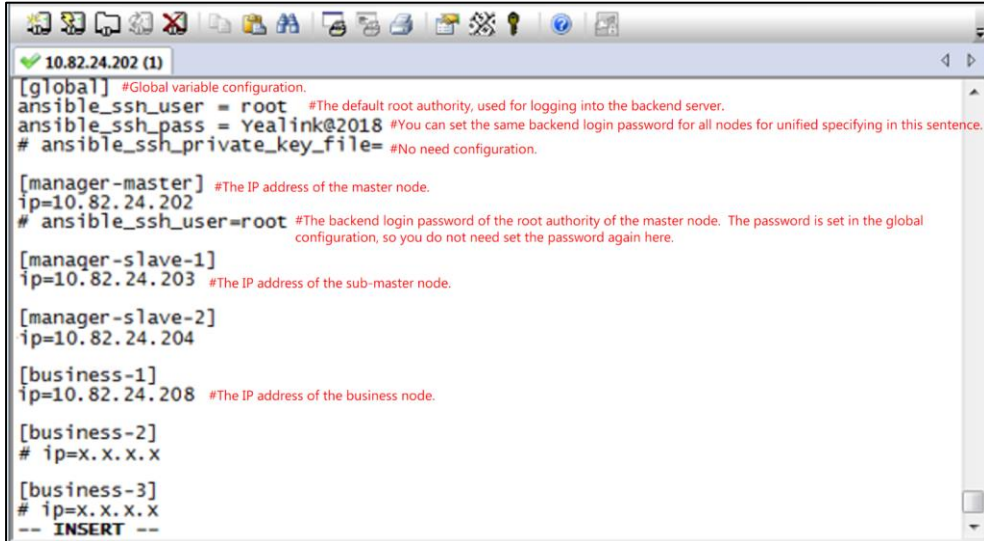
3. Enter B to select the cluster installation.



4. Run the command: vi /usr/local/apollo/data/install.conf
5. Enter A to edit the configuration file.

For example, set 10.86.0.202 as the master node, set 10.86.0.203 and 10.86.0.204 as the

sub-master nodes, and set 10.86.0.208 as the business node.



```

[global] #Global variable configuration.
ansible_ssh_user = root #The default root authority, used for logging into the backend server.
ansible_ssh_pass = Yealink@2018 #You can set the same backend login password for all nodes for unified specifying in this sentence.
# ansible_ssh_private_key_file= #No need configuration.

[manager-master] #The IP address of the master node.
ip=10.82.24.202
# ansible_ssh_user=root #The backend login password of the root authority of the master node. The password is set in the global
# configuration, so you do not need set the password again here.

[manager-slave-1]
ip=10.82.24.203 #The IP address of the sub-master node.

[manager-slave-2]
ip=10.82.24.204

[business-1]
ip=10.82.24.208 #The IP address of the business node.

[business-2]
# ip=x.x.x.x

[business-3]
# ip=x.x.x.x
-- INSERT --

```

6. Press Esc to exit, and run the following command:

```
:wq
```

```
./install.sh
```

The installation succeeds if the page displays the following part:

```

PLAY RECAP *****
business-1          : ok=609  changed=291  unreachable=0    failed=0
business-2          : ok=609  changed=291  unreachable=0    failed=0
manager-master      : ok=1126 changed=541  unreachable=0    failed=0

```


Uninstalling YMS 2.0

Procedure (log into CentOS as the root user):

1. Open Terminal.
2. Run the command: `./apollo-uninstall`

For the cluster installation, you need run this command on each node.

3. Enter the password which can be obtained from Yealink.

Customer Feedback

We are striving to improve our documentation quality and we appreciate your feedback. Email your opinions and comments to DocsFeedback@yealink.com.

Technical Support

Visit Yealink WIKI (<http://support.yealink.com/>) for the latest firmware, guides, FAQ, Product documents, and more. For better service, we sincerely recommend you to use Yealink Ticketing system (<https://ticket.yealink.com>) to submit all your technical issues.