



SCP

User Manual

Version 6.1.0



Change Log

Date	Change Description
July 27, 2020	Edited the SCP user manual

CONTENT

Chapter 1 Overview	5
1.1 Brief Introduction of SCP Products.....	5
1.2 SCP Architecture.....	7
1.3 SCP Key Characteristics.....	9
Chapter 2 Installation and Upgrading.....	17
2.1 New deployment.....	17
2.2 Deployment of Operating and Standby Units (If Necessary)	20
2.3 Network Configuration.....	23
2.4 SCP Activation.....	28
2.5 Add Physical Resources.....	35
2.6 HCI Cluster Licensing.....	38
2.7 Security Resource Licensing.....	42
2.8 Division of Resource Pool.....	43
2.9 Upgrade.....	46
2.10 Delete Cluster	49
Chapter3 Operation Maintenance and Management.....	53
3.1 System.....	53
3.1.1 General Configuration	53
3.1.2 System Maintenance.....	66
3.1.3 Business Maintenance.....	67
3.1.4 Login Policies	68
3.2 Resource Management.....	71
3.2.1 Image Management.....	71
3.2.2 Virtual machine.....	79
3.2.3 Network Administration.....	93
3.2.4 Business Reliability.....	105
3.2.5 Monitoring & Tasks.....	105
3.2.6 Management.....	105
3.3 Operations Center.....	110
3.3.1 Users	111
3.3.1.2 Roles	112
3.3.1.3 Tenant Management.....	114
3.3.1.4 Tenant User Management.....	121
3.3.2 Quota.....	124

3.3.3	Work Oder	127
3.3.3	Billing Center	136
3.4	Monitoring Center.....	138
Chapter4	FAQ.....	144

Chapter 1 Overview

SANGFOR Cloud Platform SCP can manage cross-region clusters and provide heterogeneous management support for VMware data centers, which can divide the managed pool of resources into multiple logically Resource Pools, realizes the customized approval process and billing functions through the setting of classified administrator authority. It also enhances the network management and security among tenants, and tenants can configure their own firewall, and the flexible image management can effectively reduce the workload of platform management personnel in operation and maintenance. On the other hand, in terms of business reliability, through remote disaster recovery services, it provides users with a complete virtual machine-level remote disaster recovery plan.

This chapter mainly introduces and explains the SANGFOR SCP products in detail, including product introduction, architecture and key features.

1.1 Brief Introduction of SCP Products

SANGFOR cloud platform(SCP) can provide abundant management capabilities. First of all, in the resource creation phase, it can put multiple data centers under heterogeneous management. These data centers may be either cross-regional clusters or VMware data centers. In terms of authorization, it supports uniform authorization; in other words, In case of heterogeneous management of multiple HCI clusters, only one SCP authorized import is need, while all the authorizations of other clusters under heterogeneous management may be distributed as needed through the SCP authorization. On the tenant side, it has abundant tenant management functions. On the one hand, the administrator may customize the approval process, and on the other hand, the tenant may submit the independent service work order application resources, which should be used and charged reasonably through multiple levels of resources charging functions. In terms of security, in multi-tenant scenarios, it supports tenants to configure their own distributed firewall policies without conflicting with platform administrators' policies; in terms of management, a single cluster can support up to 64 hosts, support the tenants' subnet topology display, and can provide API interfaces conforming to the openstack specification for third parties; in terms of hardware, it provides support for INTEL's latest V5 CPU.

On the other hand, SANGFOR cloud platform SCP integrates three centers: Reliability Center, Operations Center and Monitoring Center. Among them, Reliability Center can provide users with a complete virtual machine-level remote disaster preparedness plan, including disaster recovery plan, disaster recovery drill, virtual machine recovery and relocation, visual operation and maintenance, etc. "Operations Center" can provide users with a wide range of management options, including multi-tenant, autonomous work order, flow billing, authority management and VMware heterogeneous management capabilities; and "Monitoring Center" can provide users with a multi-dimensional monitoring perspective, which supports the monitoring from both the platform and business levels to ensure the business runs normally in all respects.

The list of SANGFOR SCP product features is shown in the following table:



: This table only lists the basic functions supported by SANGFOR SCP. Please consult the after-sales technical service engineer of the local office for specific configuration implementation and other functions.

Table 1-1 SCP Product Function List

Affiliated Components	Function Items	Descriptions of Functions
SCP cloud platform	Multi-tenant	Support multi-tenant access
SCP cloud platform	Self-service work order	Support tenant work order self-service application
SCP cloud platform	Customization of approval process	Support the layout approval process and support multi-level examination and approval.
SCP cloud platform	Billing and measurement	Charging for tenants' CPU, memory and storage
SCP cloud platform	Support VMware VDC functions	Support the editing of VMware virtual machine configuration on cloud platform (supporting CPU editing, memory, hard disk, network).
SCP cloud platform	Multi-tenant distributed firewall	Multi-tenant scenario: it supports tenants to configure their own distributed firewall policies without conflicting with the policies configured by super administrators.
SCP cloud platform	Tenant topology display	Multi-tenant scenario: support the administrator zooming method to display the tenant virtual network topology, supports the tenant sub-topology rendering.
SCP cloud platform	Multi cluster & multi-data center management	Support cross-regional cluster management and support the heterogeneous management of VMware

SCP cloud platform	Authority management	Set different administrative authorities for different administrators.
SCP cloud platform	Image management	Support image distribution and management of different partitions
SCP cloud platform	Unified authorization	Authorization for managing single or multiple HCI clusters on the cloud platform
SCP cloud platform	Integration capability	Cloud management provides API to third party in line with openstack specification.
SCP cloud platform	Reliable Center	General Drawing of Provision of Reliability Services
SCP cloud platform	Disaster recovery management	Provide a complete VR remote disaster recovery plan
HCI	Data striping	Further optimize virtual storage performance
HCI	Big cluster	A single cluster supports up to 64 hosts
HCI	Support INTEL V5CPU	Provide the latest INTEL CPU support

The recommended deployment modes are as follows:

1. The SCP is deployed on the HCI cluster in the form of virtual machine.
2. HCI cluster IP and user password are added voluntarily to SCP to conduct heterogeneous management over HCI cluster.
3. vcenter cluster user IP and password are added voluntarily to SCP to conduct heterogeneous management over VMware.



Note: SCP does not currently support deployment on VMware and physical machines.

1.2 SCP Architecture

From the perspective of business stratification, the architecture of SANGFOR SCP cloud

platform is as follows:

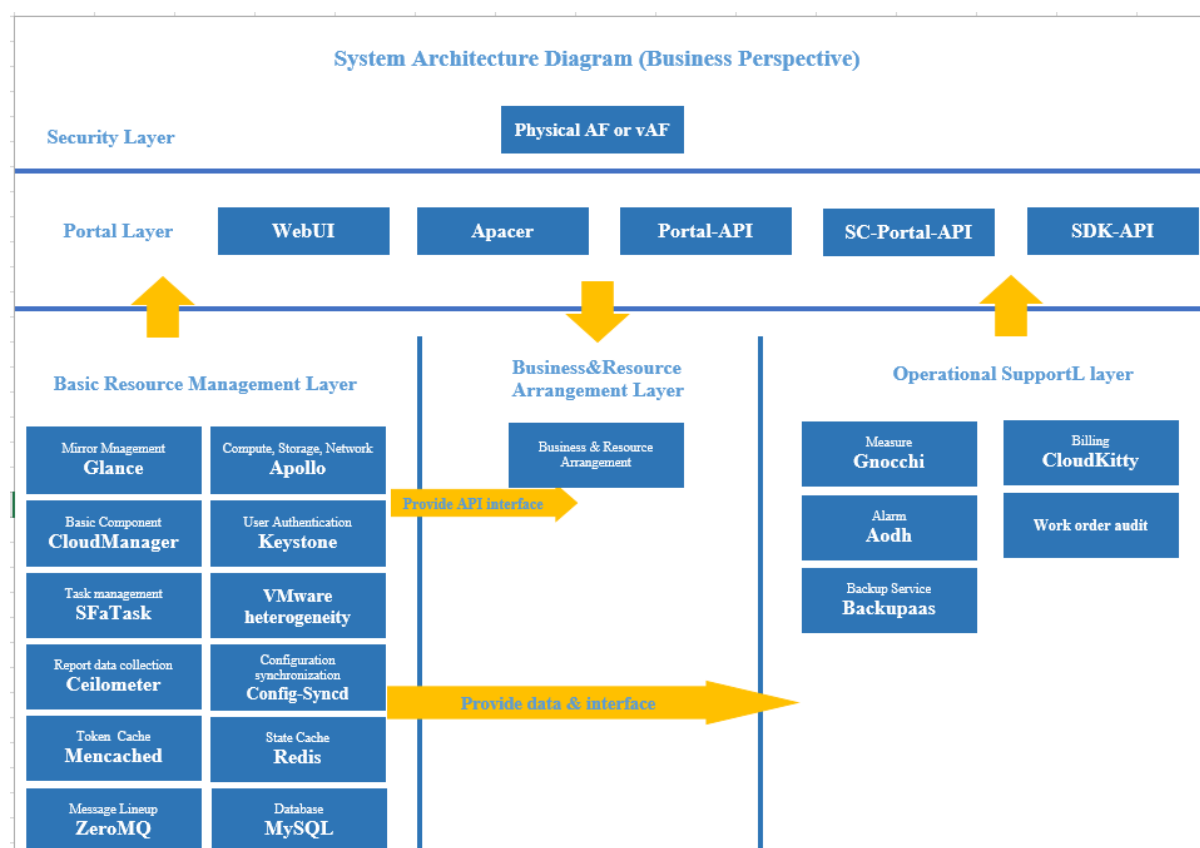


Fig. 1-1 SCP System Architecture Diagram

In view of the above Fig. 1-1, it is briefly explained as follows:

The micro-service architecture is adopted at the overall back-end, which supports horizontal scaling, low coupling, building block-type, stateless and inter-module REST API communication and maintains decoupling;

- With the separation of SCP and HCI architectures, cloud management architectures can provide rapid evolution and upgrade based on the actual needs;
- SCP is decoupled from HCI architecture to ensure HCI architecture is stable with high performance;
- With the front-end display and back-end separation, back-end configuration customization, it can quickly integrate and display data;
- Standardized API interface can facilitate the integrated development by a third party;
- Internal RPM management shall be used to support module decoupling and upgrade;
- The MongoDB's front-end reading/writing separation architecture supports large concurrency;

- The three-level role system based on keystone extension (admin, tenant and user) has more flexible management dimensions than the two-level role of Openstack (admin and tenant);
- Based on the self-developed Phoenix framework on Openstack, it solves the problem that Openstack service architecture is too redundant while maintaining the advantages of Openstack architecture;
- The Gnocchi module redeveloped based on Openstack has been greatly improved compared with the performance of official Gnocchi;

1.3 SCP Key Characteristics

● Multi-cluster Management

SCP unifies the management of resources such as infrastructure, Resource Pools, cloud services and tenant applications.

The deployment mode of SCP includes single data center and multi-cluster deployment, which is used to conduct heterogeneous management over multiple different clusters in the same data center. The logical topology of the deployment is shown in Fig. 1-2:

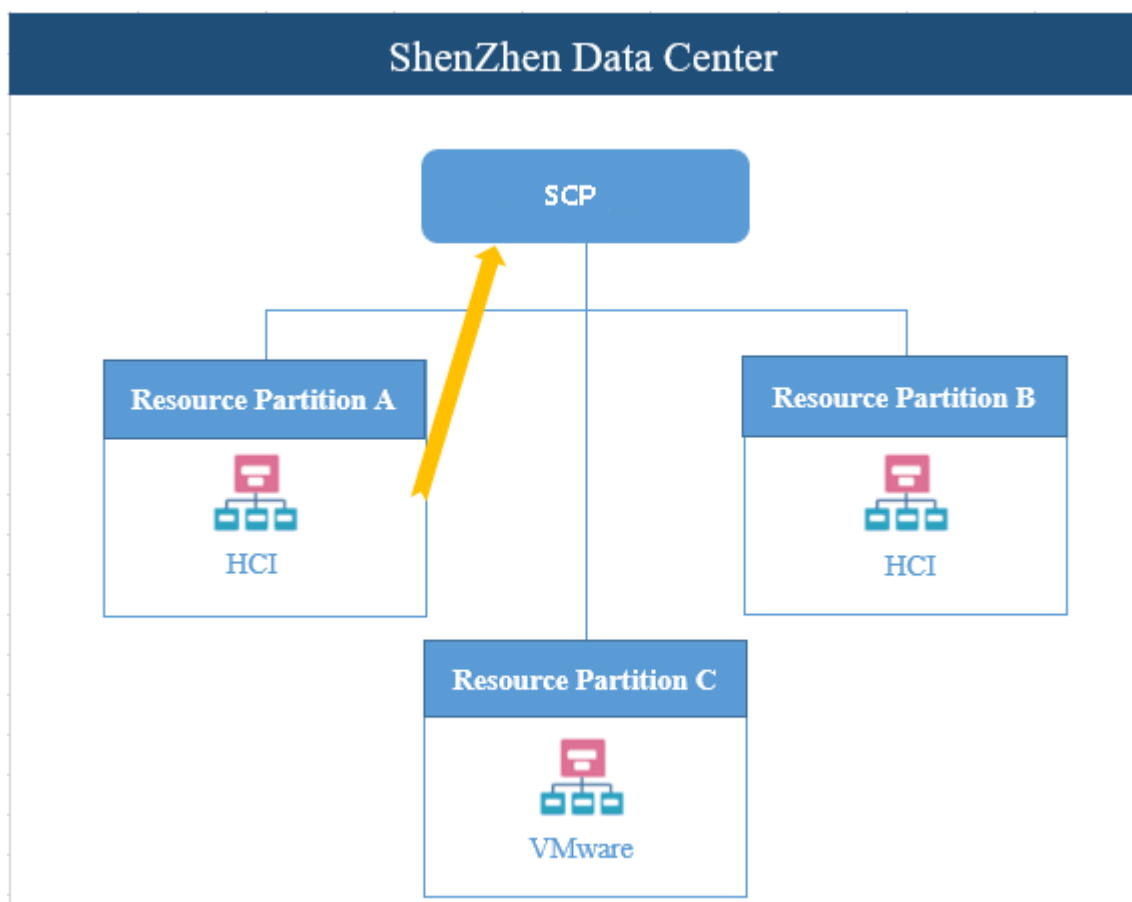


Fig. 1-2 Multi-cluster Deployment of Single Data Center

At the same time, SCP supports the cross-regional heterogeneous management of multiple clusters from multiple data centers. Its deployment logic topology is shown in Fig. 1-3:

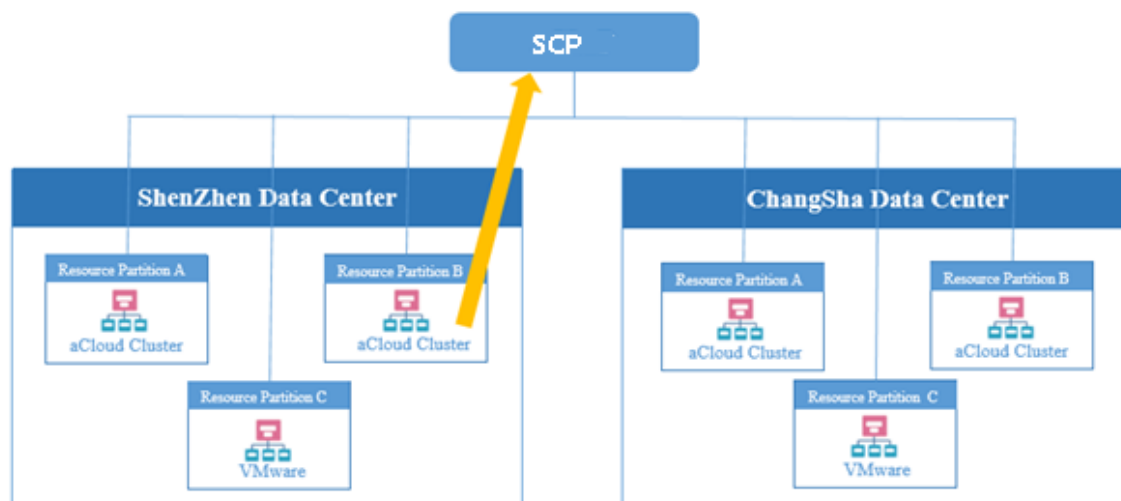


Fig. 1-3 Multi-cluster Deployment of Multi-Data Center

● Multi-tenant management

In order to meet the operational management requirements of the platform for the Tenant, SANGFOR SCP can set up a maximum of three user management levels, namely platform management, Tenant management and end users. The relationship between management responsibilities and levels is shown in Figure 1-4.

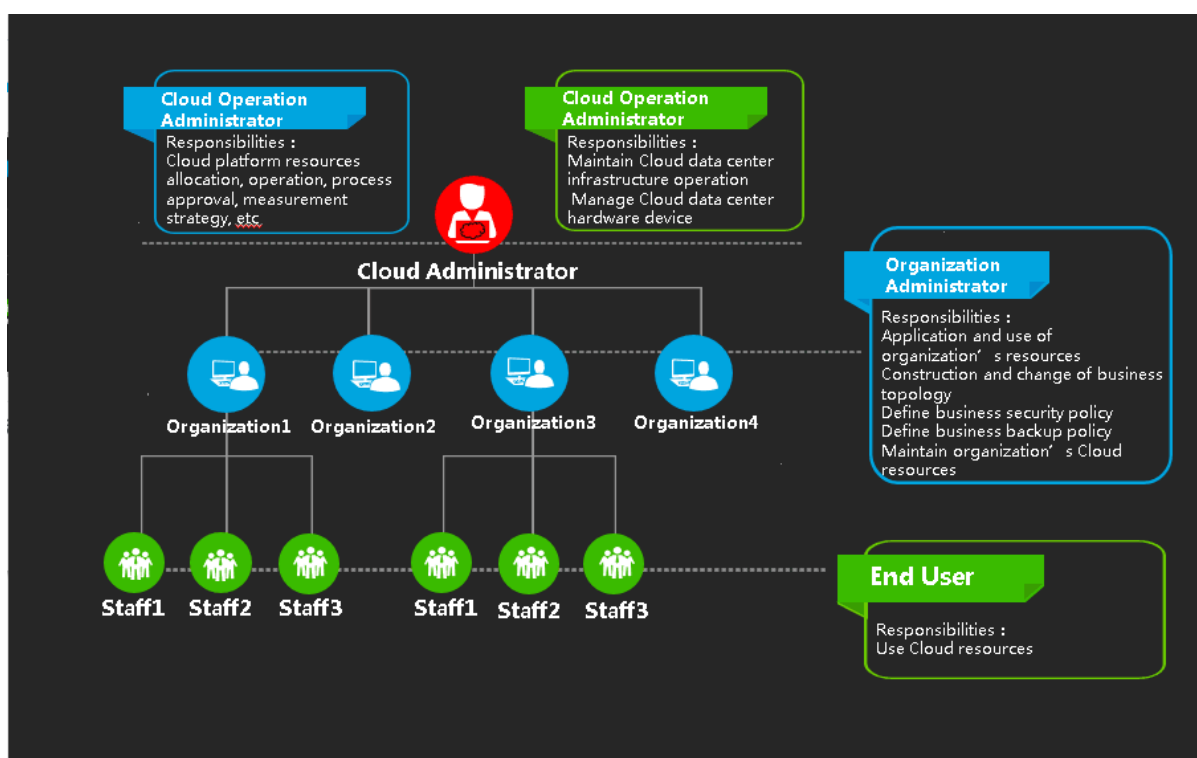


Figure 1-4 SCP User Management Level

● Self-service function

Orders will be automatically generated after users applying for or managing cloud services, such as application for and deletion of work orders. The work order is submitted to the corresponding personnel for examination and approval. After approval, the system automatically executes the work order tasks. The application process is shown in Fig. 1-5.

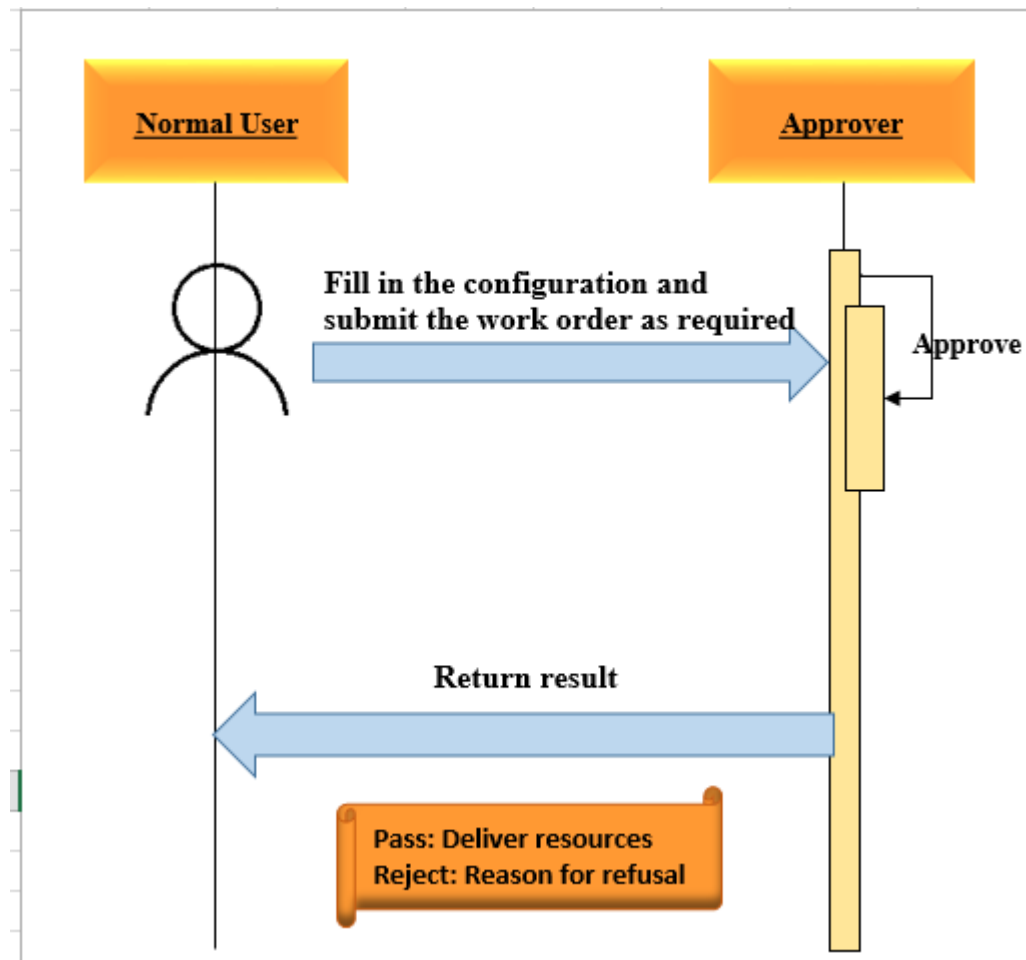


Fig. 1-5 Application Process of Self-service Work Order

● Multi-tenant Distributed Firewall

SANGFOR SCP can provide tenants with space isolation, support tenants to configure their own distributed firewall policies, without conflicting with platform administrators' configuration policies. The logical diagram of the failure domain is shown in Fig. 1-6.

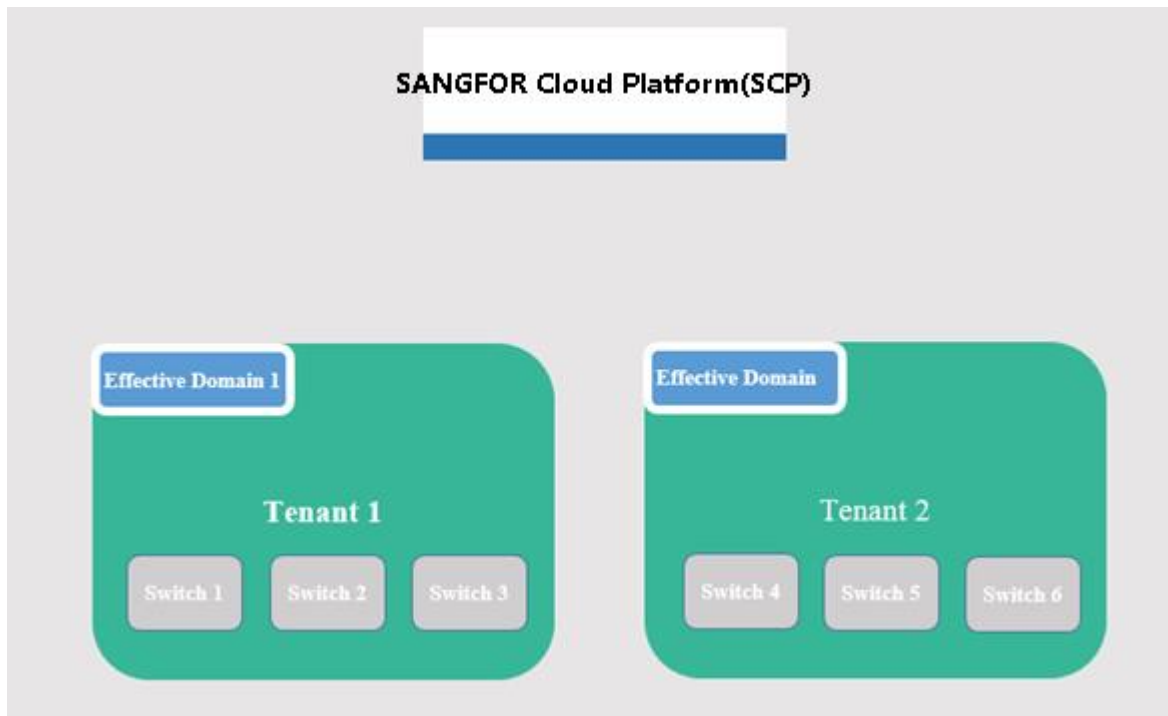


Fig. 1-6 Multi-tenant Distributed Firewall

Distributed firewall rules within each tenant will only be issued to its own switch to take effect, to achieve the firewall rule isolation between tenants and between tenants and platforms.

● Image unified management

- Provide unified image management functions to achieve unified creation and management of images on all HCI Resource Pools.
- In the multi-tenant mode, the administrators can customize the Tenant administrator. In the Tenant, the public image provided by the platform administrator can be used in the Tenant, or the customized private image can be used.
- By reducing the operation and maintenance pressure of platform administrators through a unified image management function

The process of image uploading and distribution is shown in Fig. 1-7:

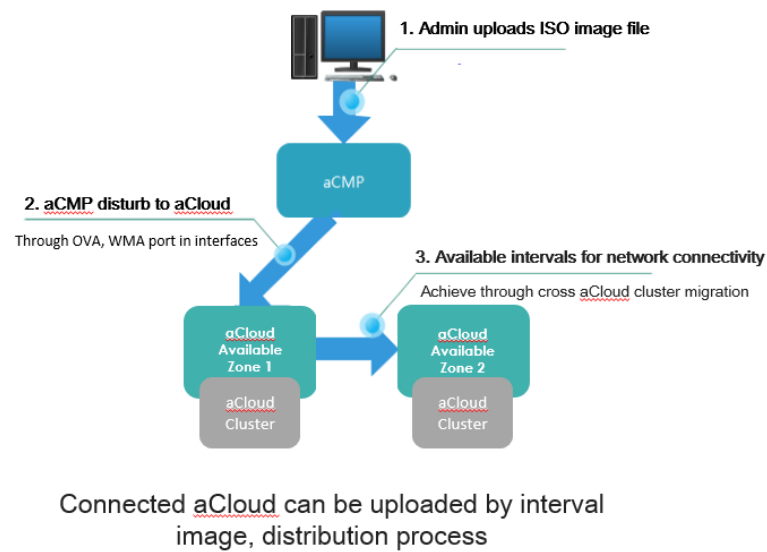


Fig. 1-7 Image Management

● Unified Licensing

The whole cloud platform only needs one authorization to satisfy the authorization of all hosts under the cloud platform, realizes the unified management and flexible control of authorization, and solves the problems that authorization cannot drift between clusters and the change of extended authorization. The mode of authorization is shown in Fig. 1-8:

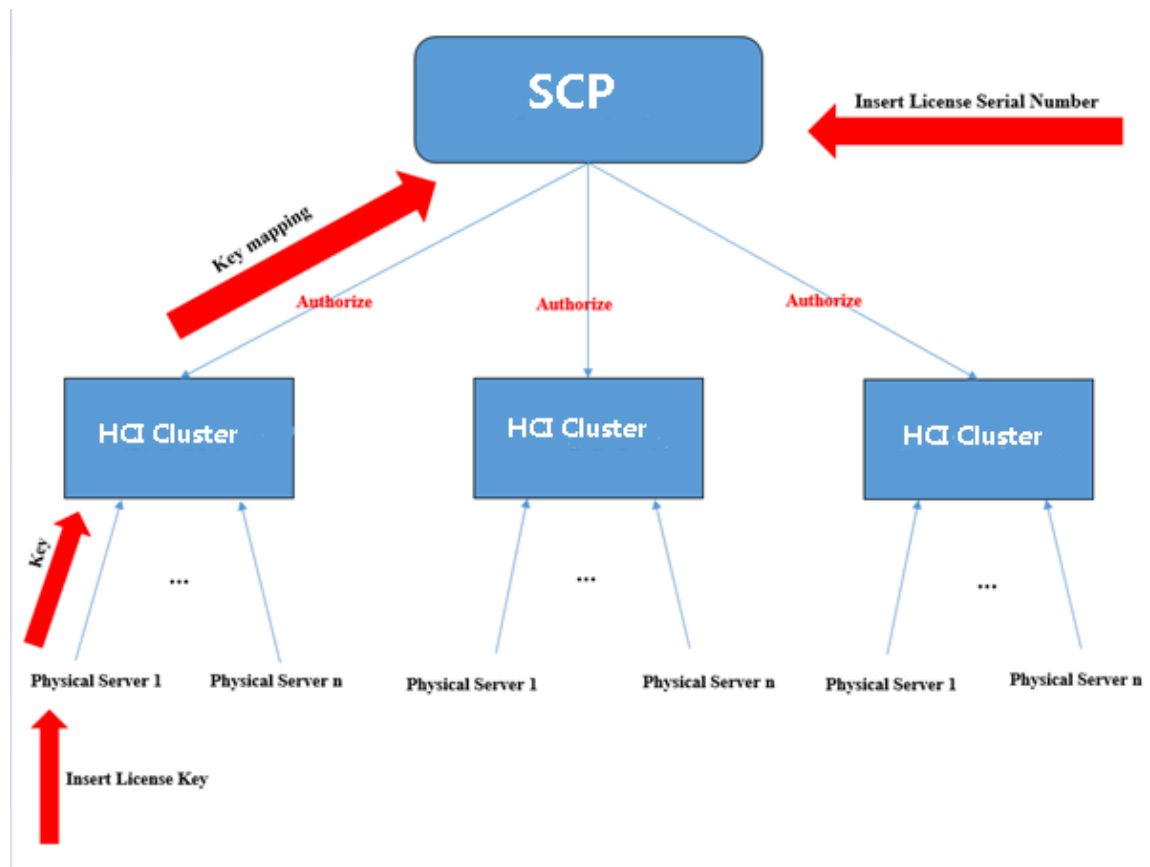


Fig. 1-8 Authorized Management

● Standard API Interface

SANGFOR SCP will provide industry-wide standard interfaces to the outside and third parties will be able to customize docking according to their needs.

Simple heterogeneous management logic is shown in Figs. 1-9 and 1-10:

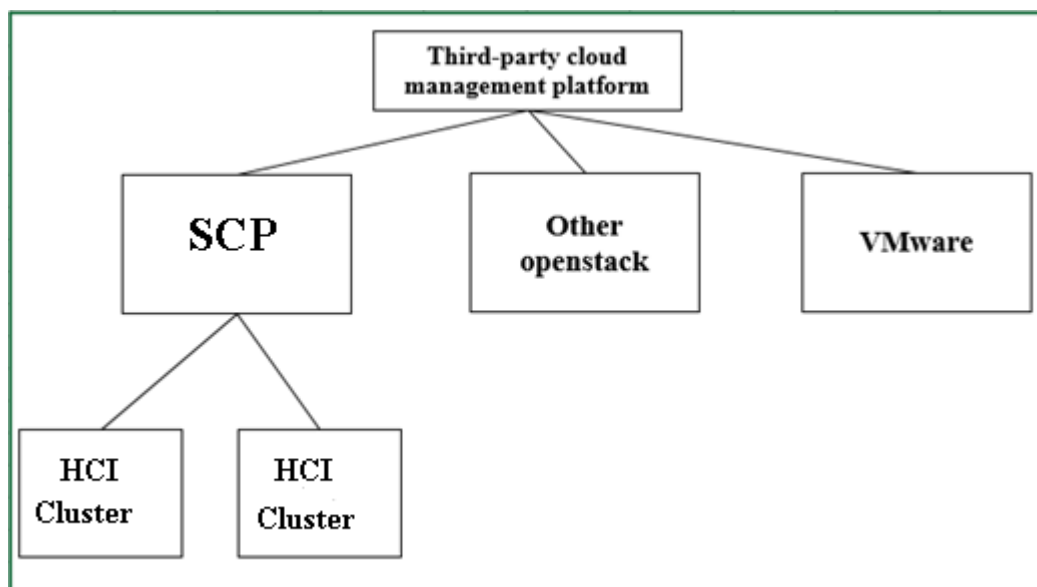


Fig. 1-9 Unified Interface

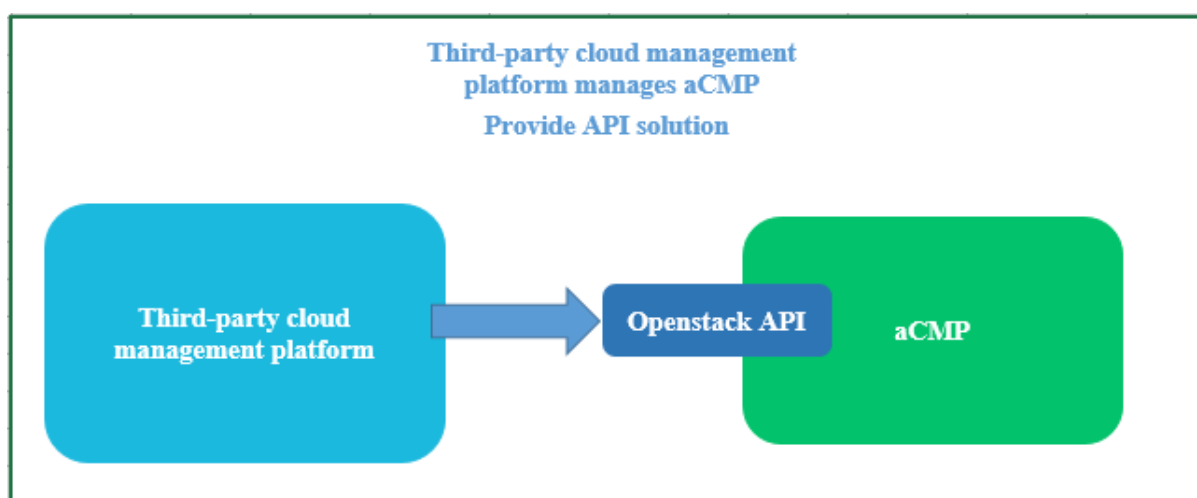


Fig. 1-10 Third Party Integration

- **Big Cluster Deployment**

SANGFOR SCP cloud platform can support the deployment of a maximum of 64 servers in the single cluster.

- **Customized Approval Process**

Flexible work order approval process to meet different customer management requirements.

- **Management of Measurement and Billing**

- Transparency and visualization of multi-tenant computing resource usage
- Transform the cost center of the data center into the profit center by charging for resources used by the secondary units and subsidiaries by the quantity
- Convenience for the industry cloud to charge for resources used by each tenant and facilitate the resource settlement with the tenant
- Provide resource availability report which can be exported.

- **Put VMware VDC under heterogeneous management**

It can unify the heterogeneous management of VMware data center and provide a unified management mode of HCI and VMware.

- **Hardware Support**

It supports HCI platform to support INTEL v5 CPU server.

- **Disaster recovery services**

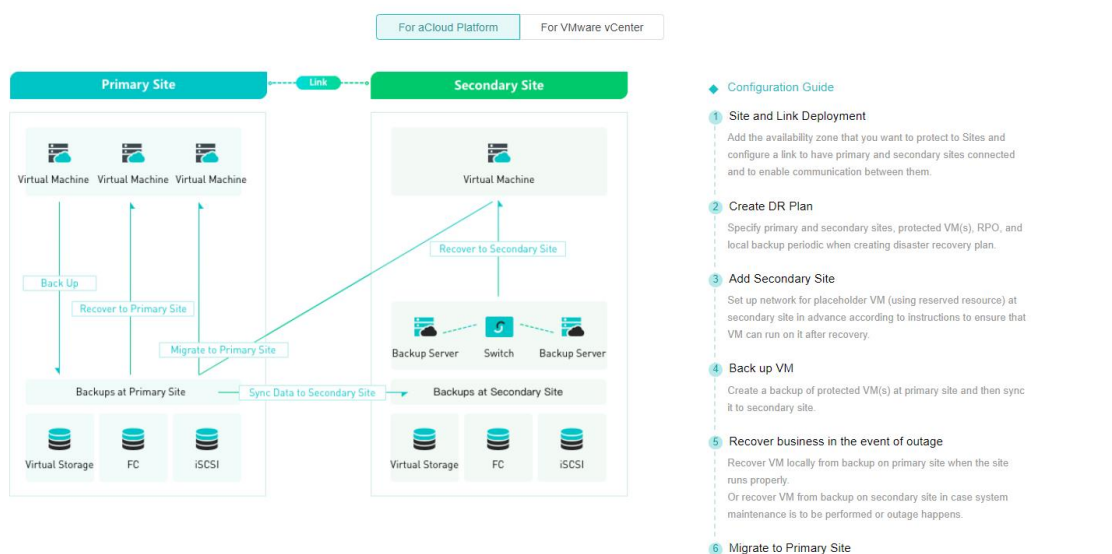


Figure 1-11

SANGFOR disaster recovery plans provide a "local backup - remote disaster recovery" plan, where the primary site configures storage (external storage or VS) for the purpose of local backup storage, and the secondary site configures an HCI cluster as the disaster recovery center.

● ReliabilityCenter

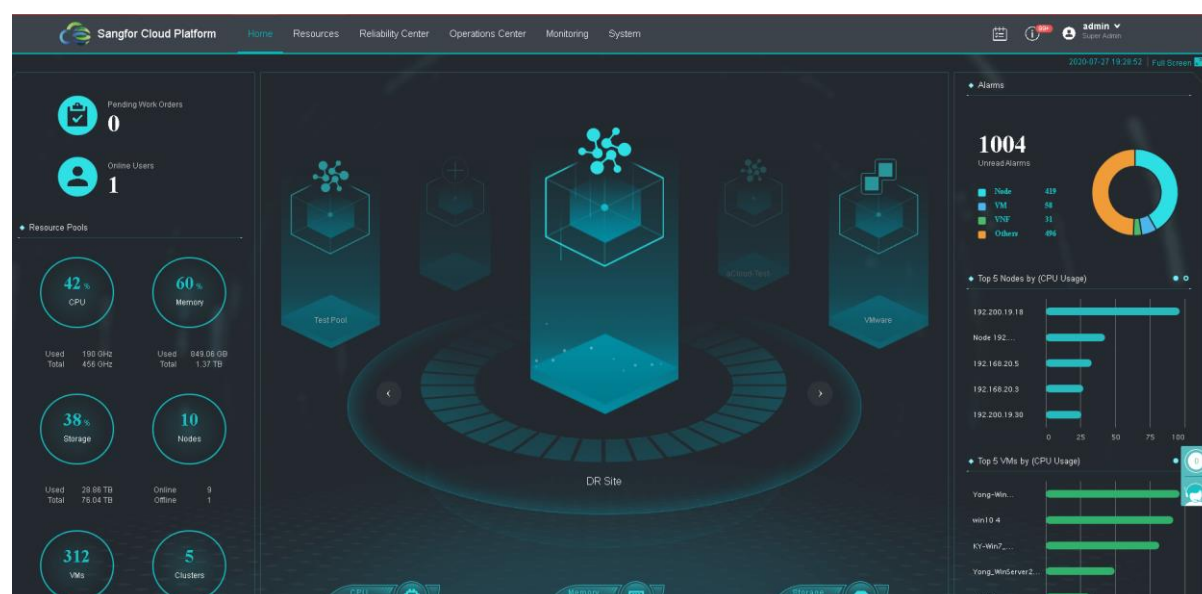


Figure 1-12

- Provide a complete business protection service, integrated in a unified platform, which is reusable and reliable.
- Simplest operation and maintenance mode of visualization with reliable resources and one-key availability of services

Chapter 2 Installation and Upgrading

2.1 New deployment

[Function description]

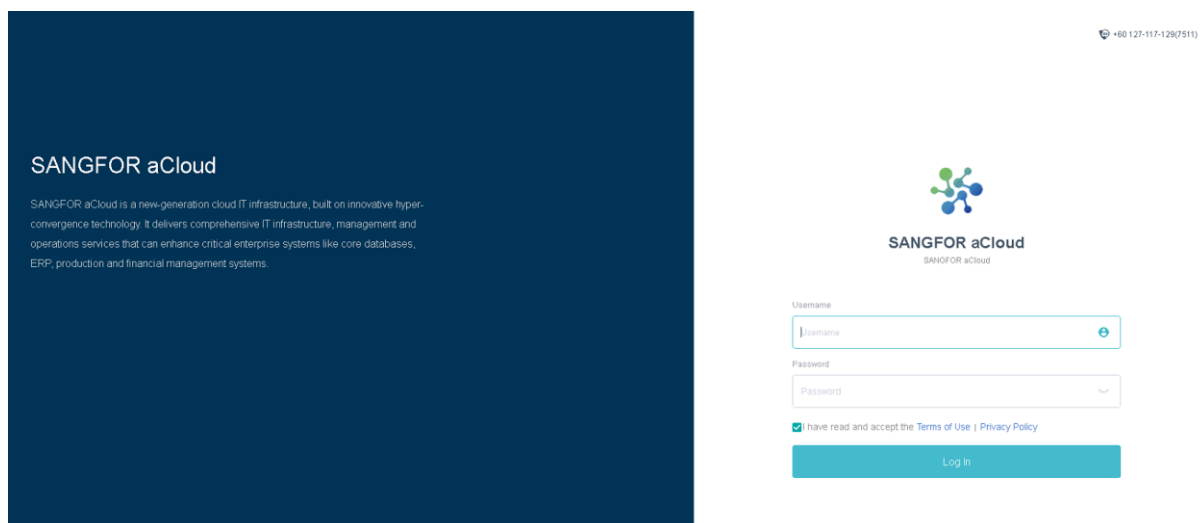
Deploy a new SANGFOR cloud platform(SCP).

[Prerequisites]

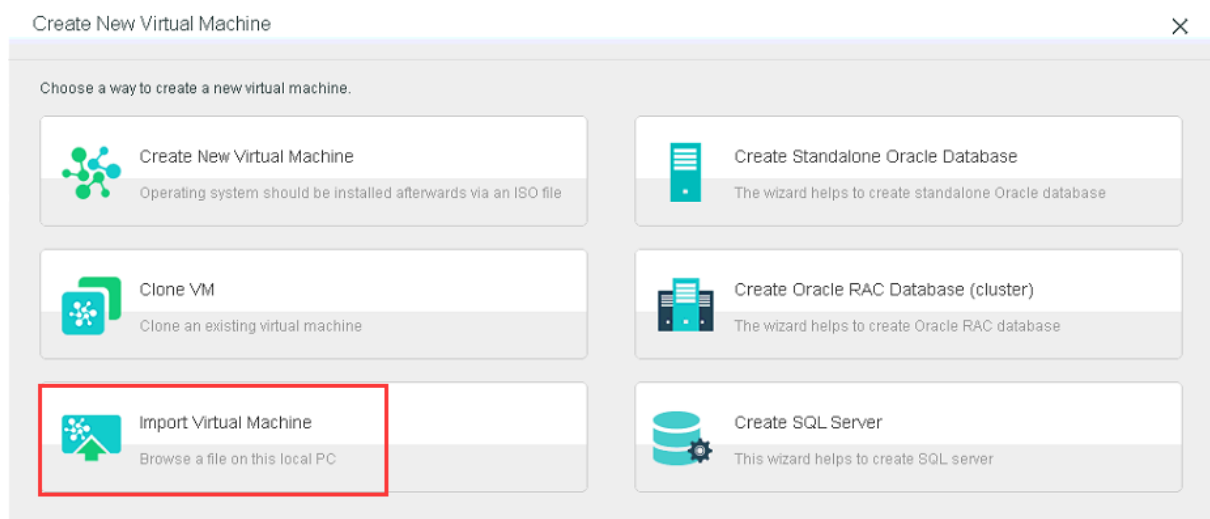
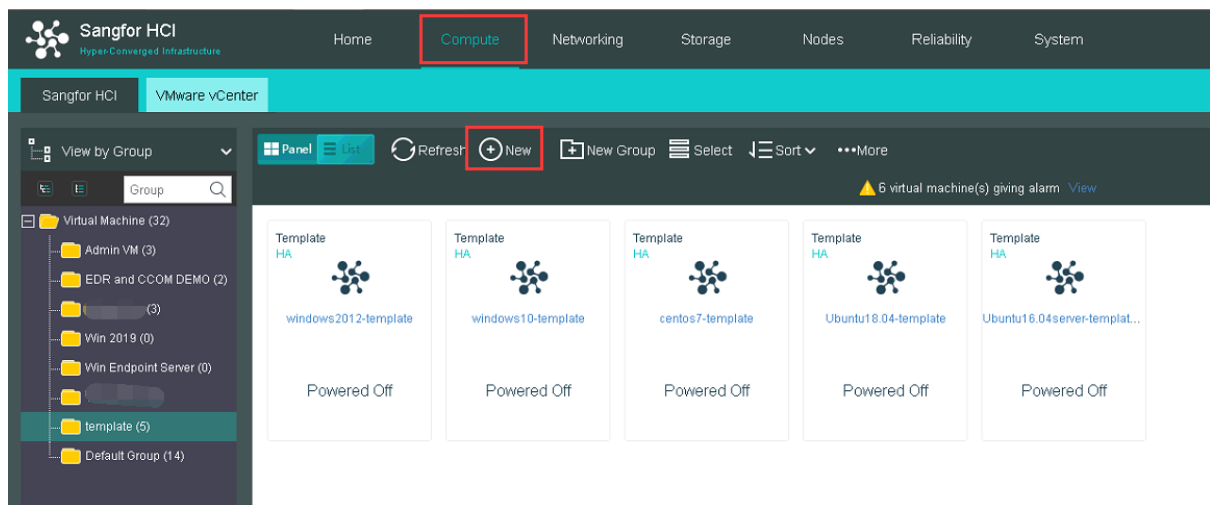
1. The SANGFOR enterprise-level cloud HCI platform has been correctly deployed.
2. The SCP image installation package is prepared.

[Operating steps]

Log onto HCI platform console:





1. Click **【Compute】** > **【New】** > **【import Virtual Machine】** :



2. Select the corresponding **VM Image File, Group, Datastore** and **Run on Node**.

After that,click "**Import**" to display the upload interface;

Import vma File



QXL graphics adapter will be used by default after VM is imported. If display issue occurs after startup, change the graphics adapter manually.

File Type:

OVA or VMA

To use a vhd, vhdx or qcow2 image file, choose Existing disk and then select that image file when configuring disk for virtual machine.

VM Image Files:

Sangfor_SCP_6.1.0_EN(20200613).vma

Group:

Default Group

HA:

☒ Migrate to another node if the node fails [HA Settings](#)

Datastore:

VirtualDatastore1

Storage Policy:



2_replica

Working Location:

<Auto>

Import

Import vma File



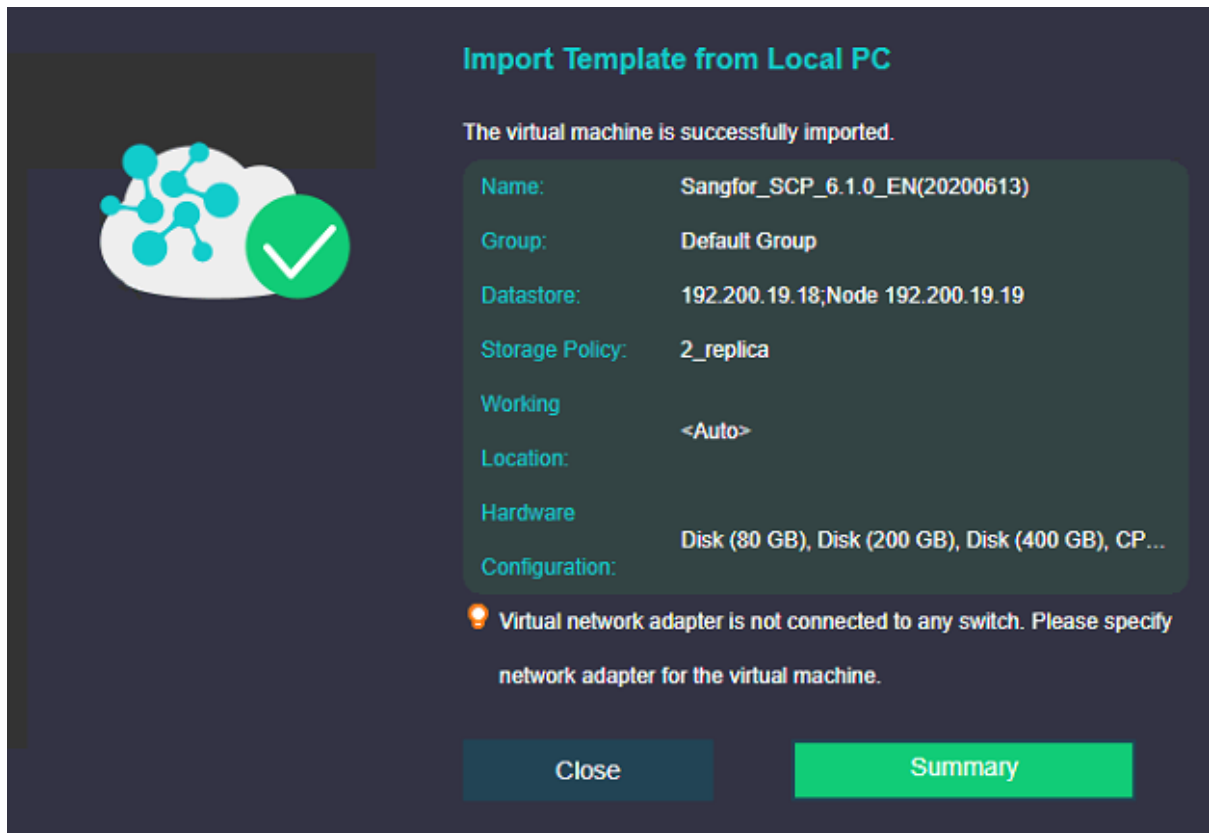
Uploading file Sangfor_SCP_6.1.0_EN(20200613).vma. Please do not close this page.

2%

Total: 3.3 GB.Uploaded: 95 MB
Upload Speed: 17.97 MB/s, Time Taken: 5 secs , Time Remaining: 3 mins 2 secs

Cancel

3. After the upload is successful, it is necessary to transfer the virtual machine to further configure the network. For details, please refer to Section 2.3 Network Configuration.



2.2 Deployment of Operating and Standby Units (If Necessary)

[Function Description]

SANGFOR SCP 6.1.0 supports operating and standby deployment. When the SCP master node is unavailable, the SCP standby node can be switched to the master node to ensure the high availability of the management platform.

[Note]

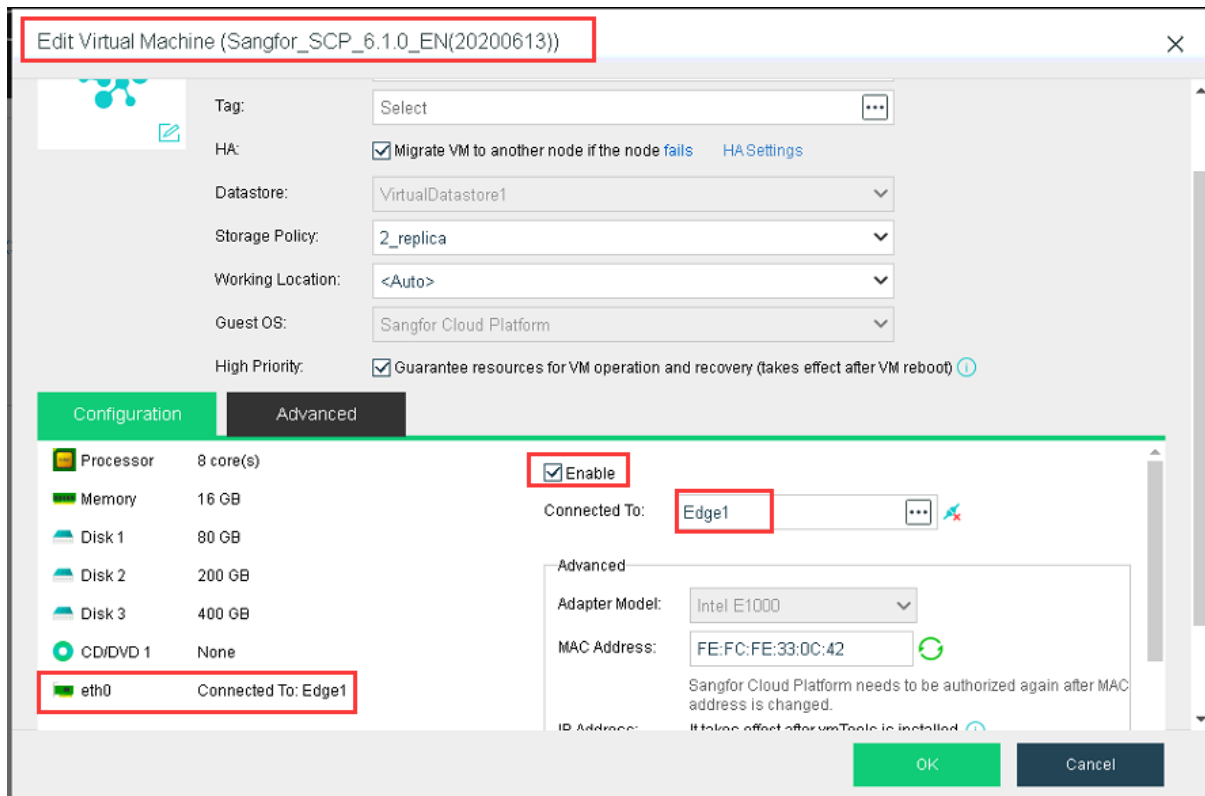
Make sure that the IP of the configured SCP does not conflict with IP addresses of other hosts, and the network between the operating and standby SCP is well connected.

[Prerequisites]

HCI Platform and SCP Virtual Machine have been accurately deployed

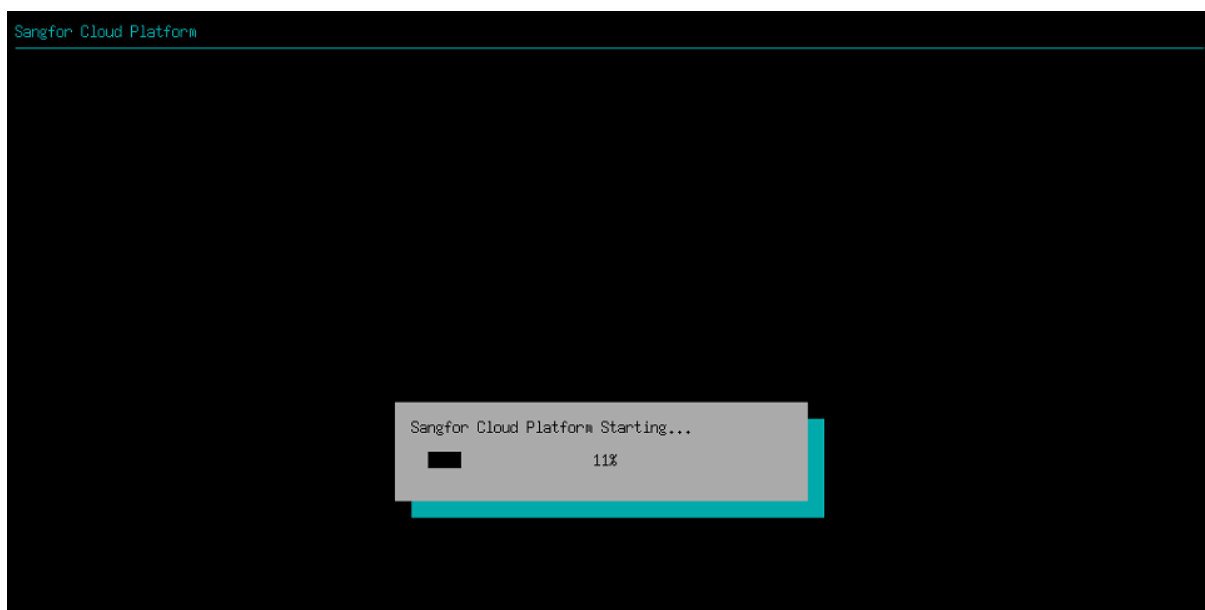
[Operating steps]

1. Select the newly imported standby SCP virtual machine (See 2.1 for the detail steps), click **【More】** > **【Edit】** to edit the network card and connect the wires with the second/third-level HCI platform management network and then click OK;

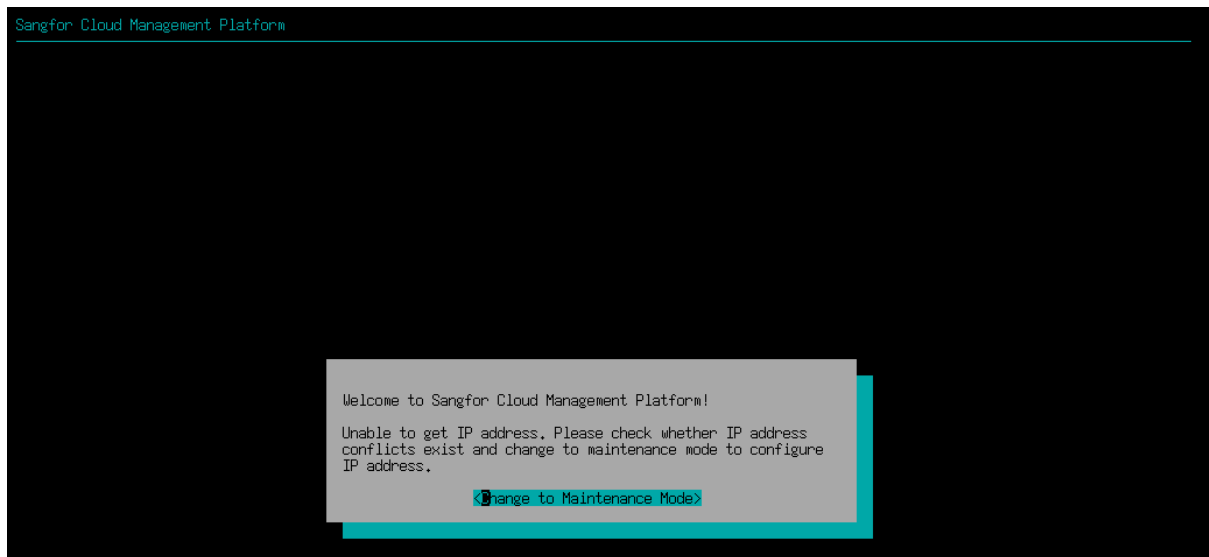


2. Start the imported SCP virtual machine, log in the console of SCP virtual machine to modify SCP password. The steps to modify are detailed in “Network Configuration” in Section 2.3 of this Chapter;

Immediately after the starting, the following will be displayed on the console interface:

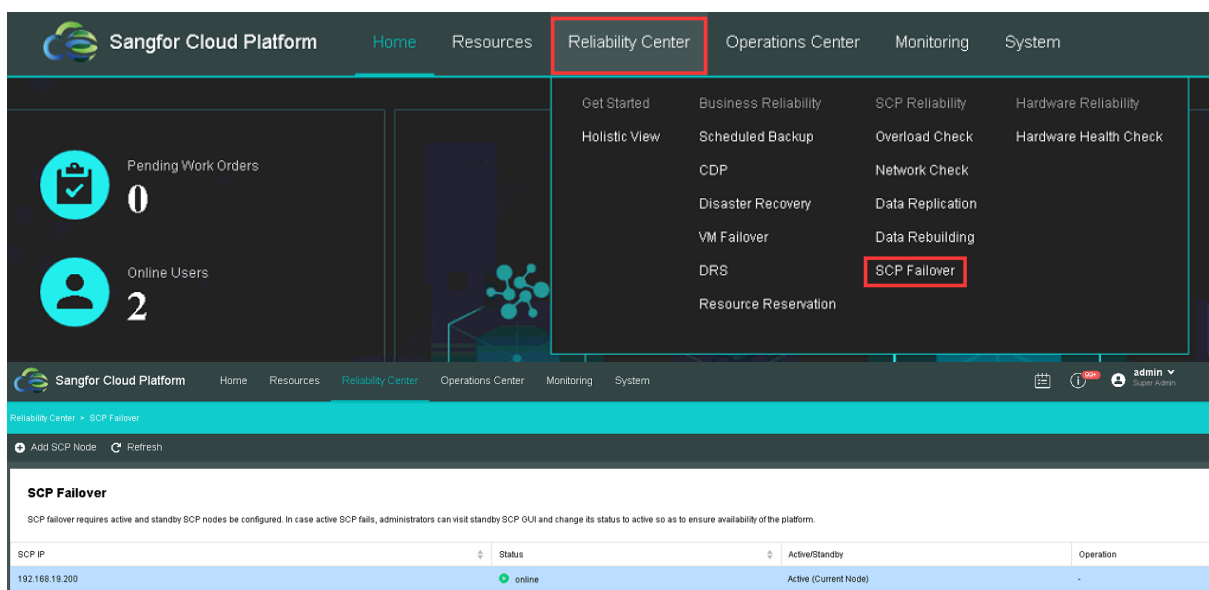


The following configuration interface will appear after shutdown:



Later, one IP is also configured for the standby SCP in reference to Section 2.3.

3. Log in the home page of main SCP and click **【Reliability Center】** > **【SCP Failover】**



4. Click **Add SCP Node**, input IP address and password of standby SaCP and click **OK**;

Add SCP Node

Configuration Guide:

1. Add a new SCP and specify its IP address, admin username and password.
2. Newly added SCP functions as a standby node to receive config and data from active node.
3. In case the current node fails, visit standby SCP GUI and switch the standby node to an active node.

SCP IP: 192.168.19.187

Username: admin

Password:

OK Cancel

After the adding, one SCP in a standby state can be seen on the configuration page.

Reliability Center + SCP Failover			
Add SCP Node Refresh			
SCP Failover SCP failover requires active and standby SCP nodes be configured. In case active SCP fails, administrators can visit standby SCP GUI and change its status to active so as to ensure availability of the platform.			
SCP IP	Status	ActiveStandby	Operation
192.168.19.200	initializing	Active (Current Node)	-
192.168.19.186	initializing	Standby	-

2.3 Network Configuration

[Function Description]

After SCP cloud platform is imported successfully, its network setting shall be conducted. So that SCP can get access to HCI cluster network and only in this way SCP can enable the heterogeneous management of other clusters where the network is accessible.

[Note]

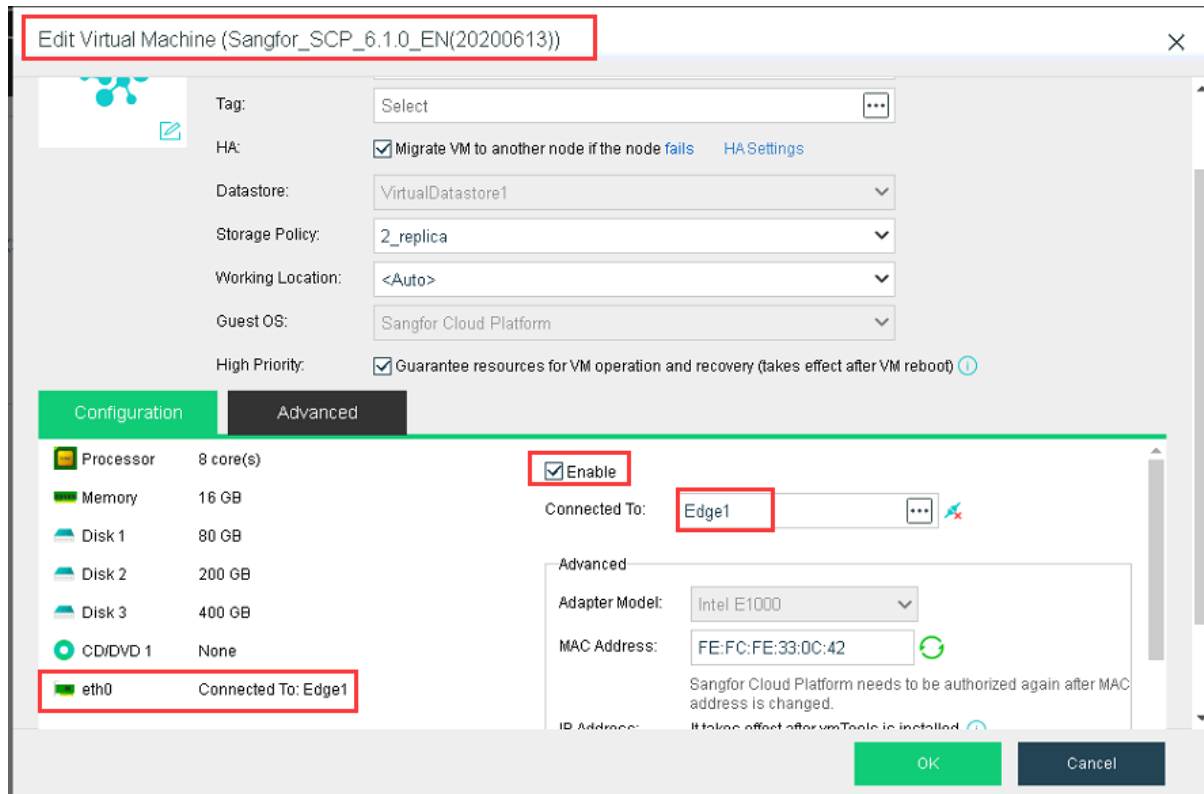
Please guarantee no conflict between the IP of SCP and the IP address of other hosts.

[Prerequisites]

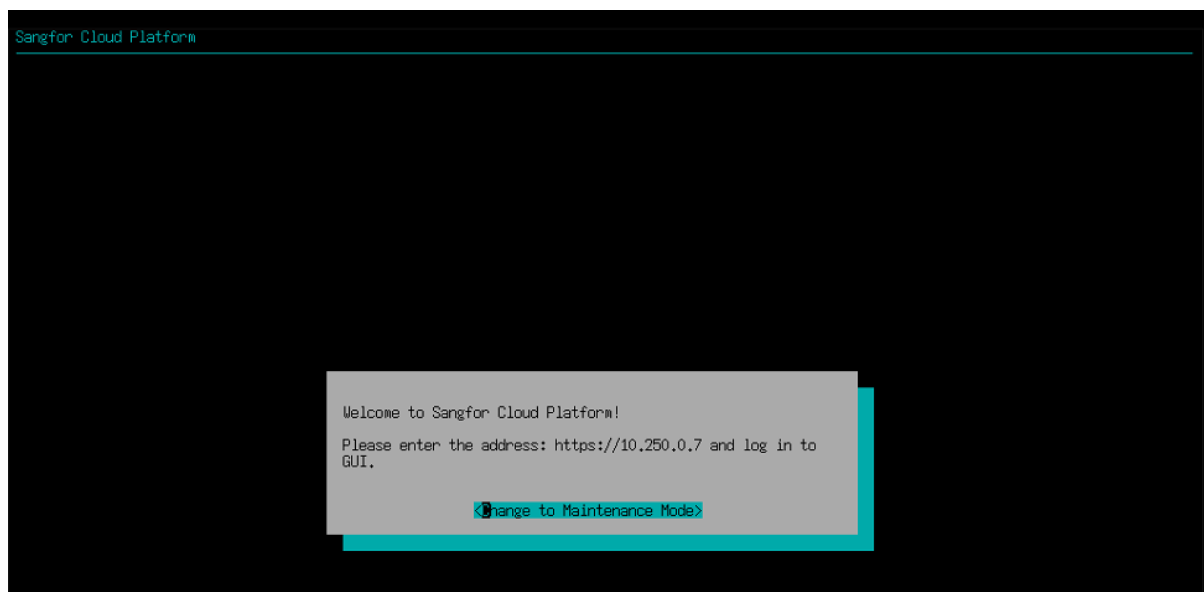
HCI Platform and SCP Virtual Machine have been accurately deployed

[Operating Steps]

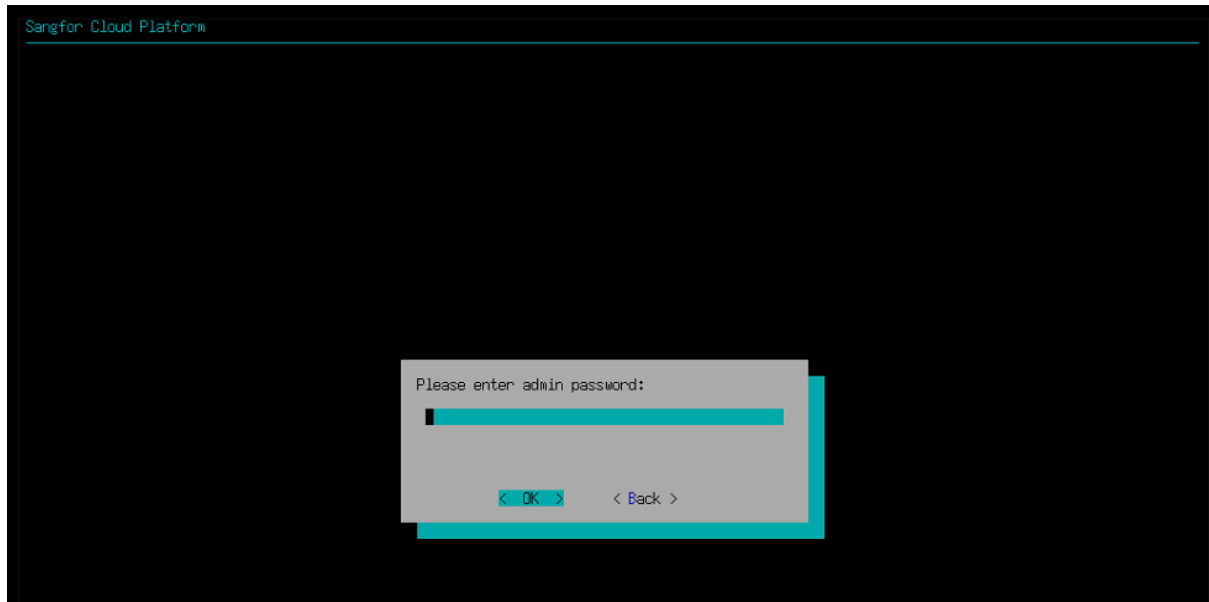
1. Select the imported SCP virtual machine, click **【More】** > **【Edit】** to edit the network card and connect the wires with the second/third-level HCI platform management network and then click the **OK**;



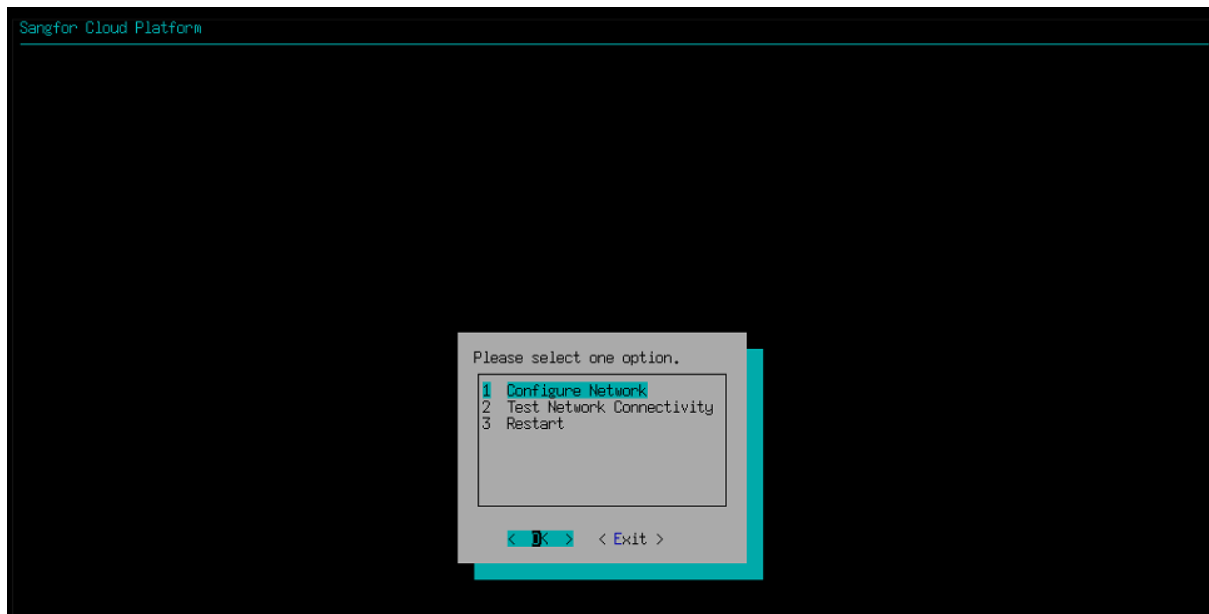
2. Start the imported SCP virtual machine and log in the console of SCP virtual machine;



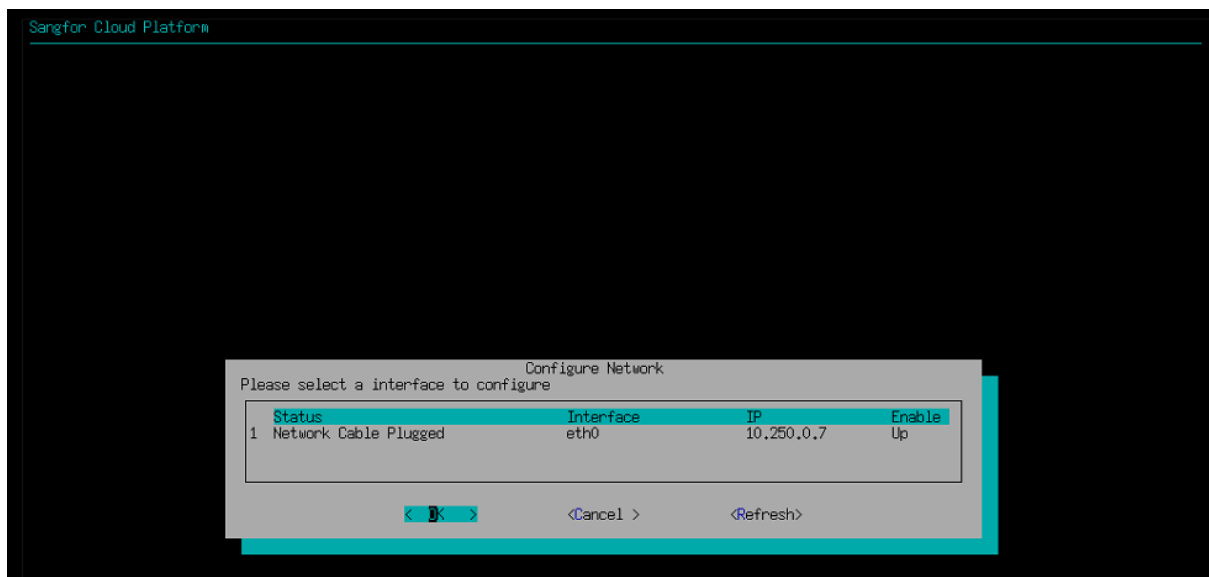
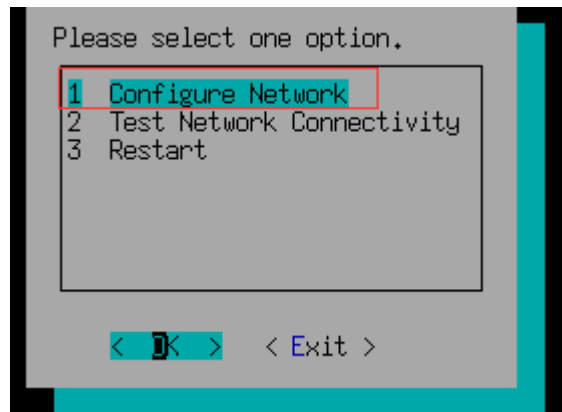
3. Have a random click on the console of virtual machine, press the key "enter" in the keyboard to enter into the maintenance mode and then enter password (the initial password is admin); after the password is entered, select the option OK and then press the key "enter" in the keyboard to enter a configuration interface.



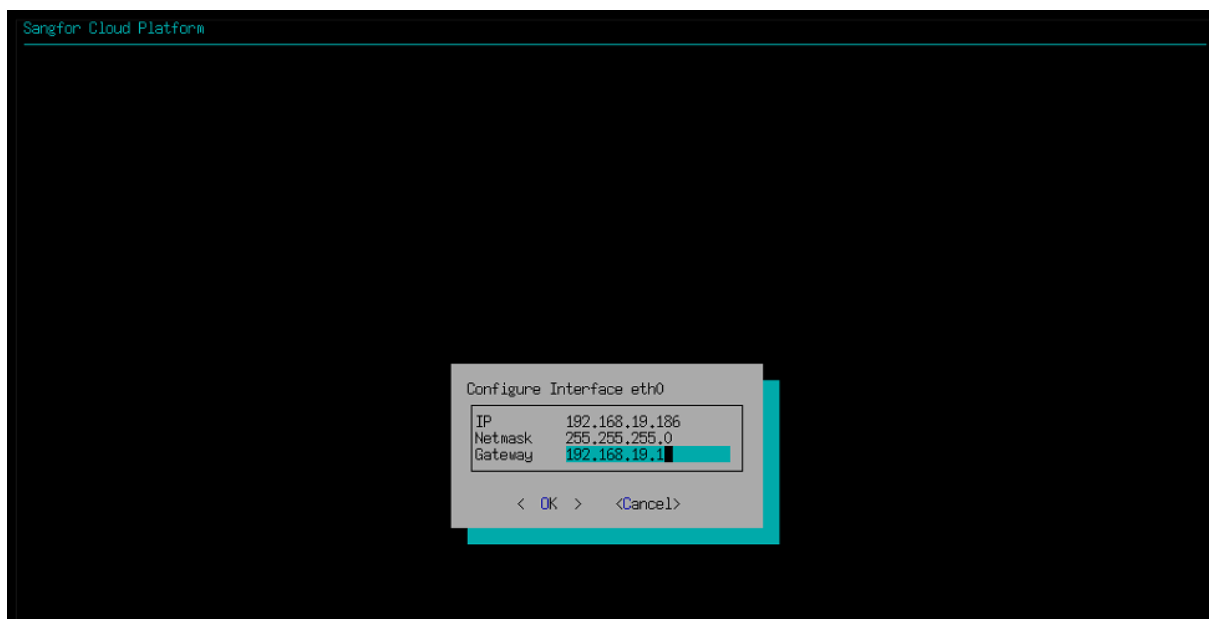
Click OK to enter the following interface:

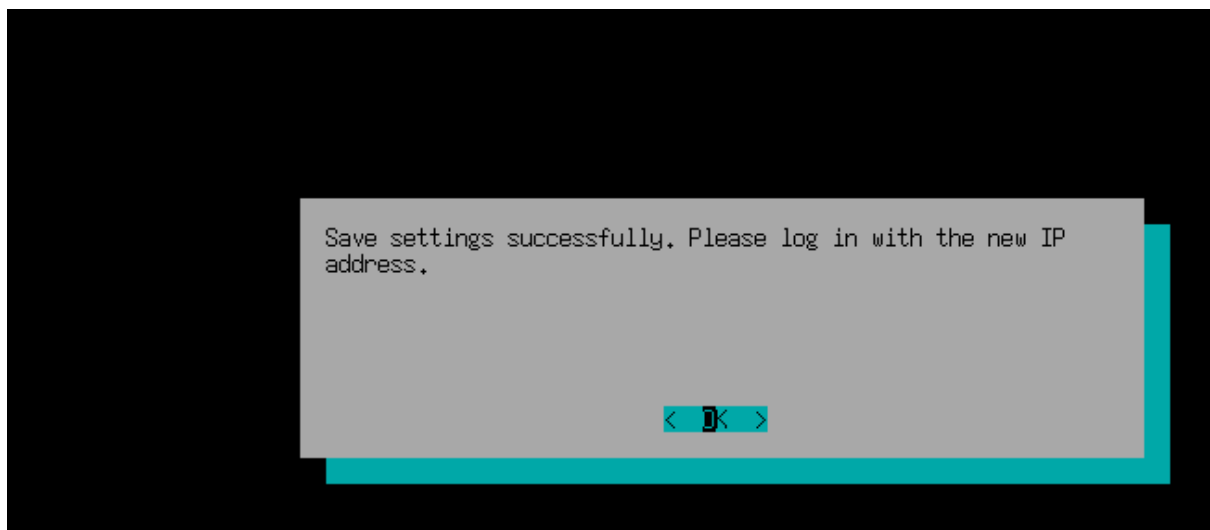


4. Click the key "↑ ↓" in the keyboard to select 【Configure Network】 and press the key "enter" in the keyboard;

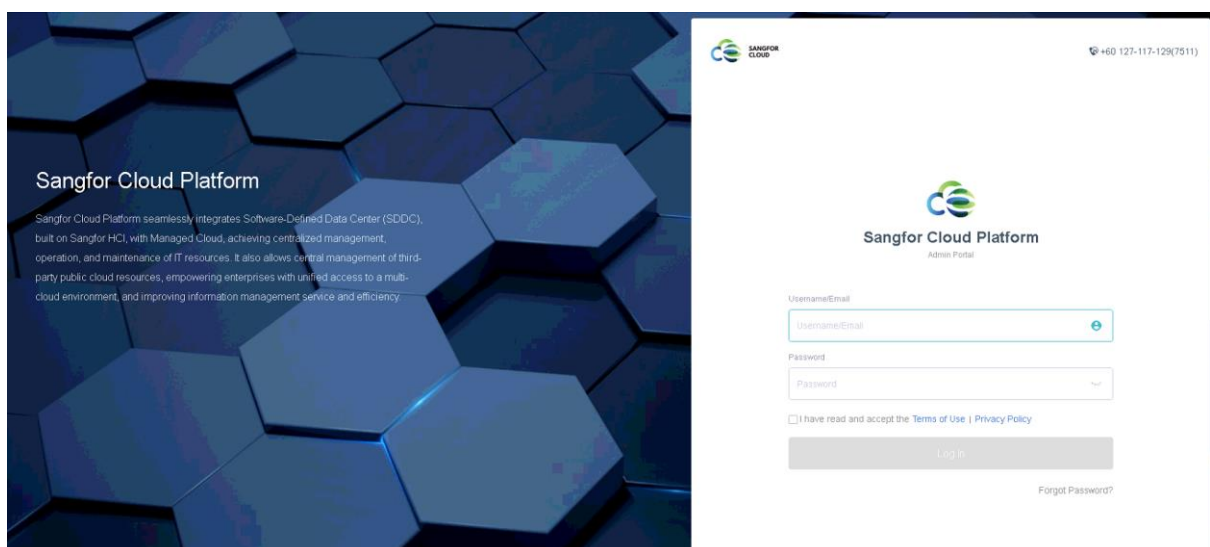


5. Set the IP address, mask and gateway and click OK;

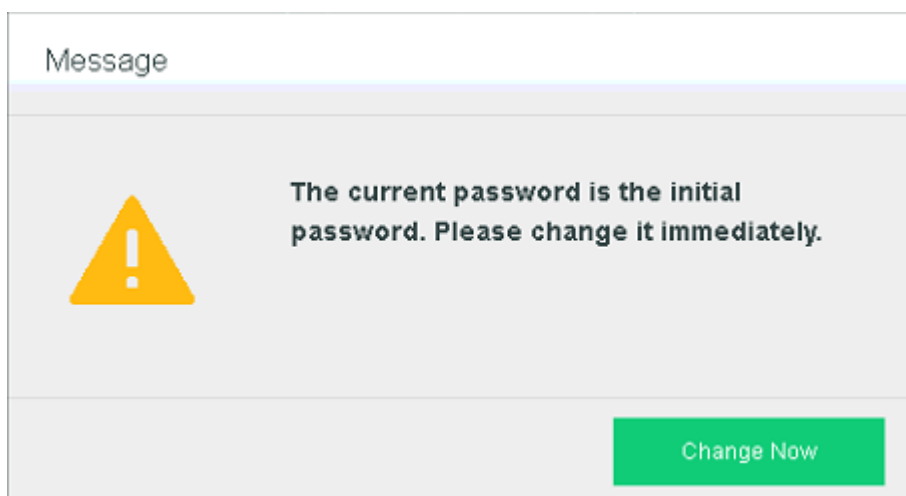


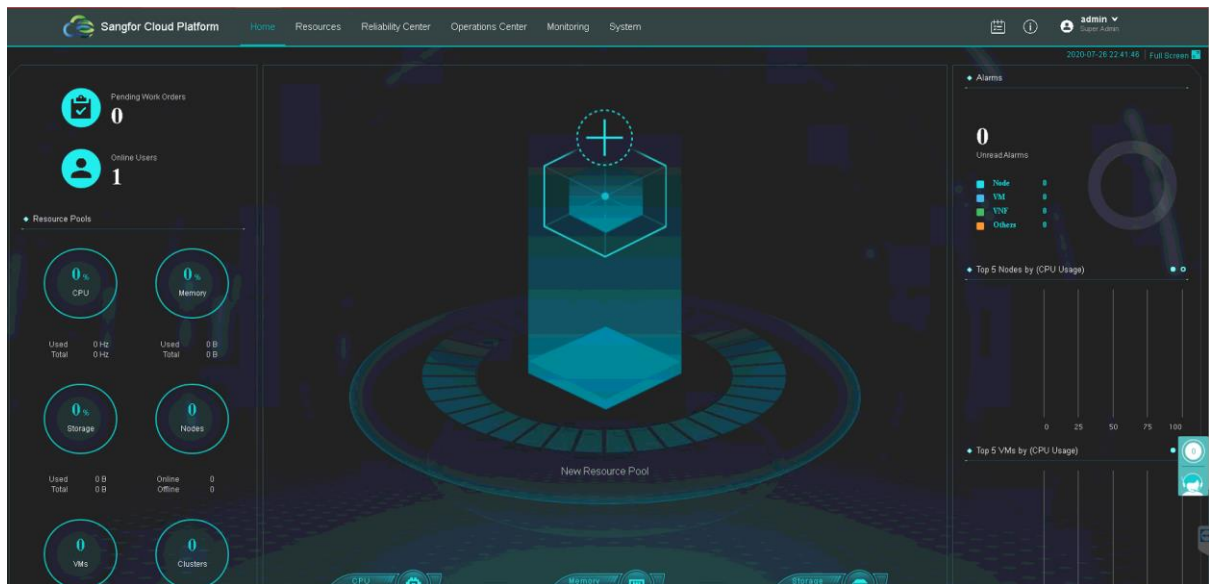


6. Open the browser, enter IP:4430 set in https:// and press the key "enter";



7. The default account and password are admin/admin. For the safety of your account, please do the modification.





2.4 SCP Activation

[Function Description]

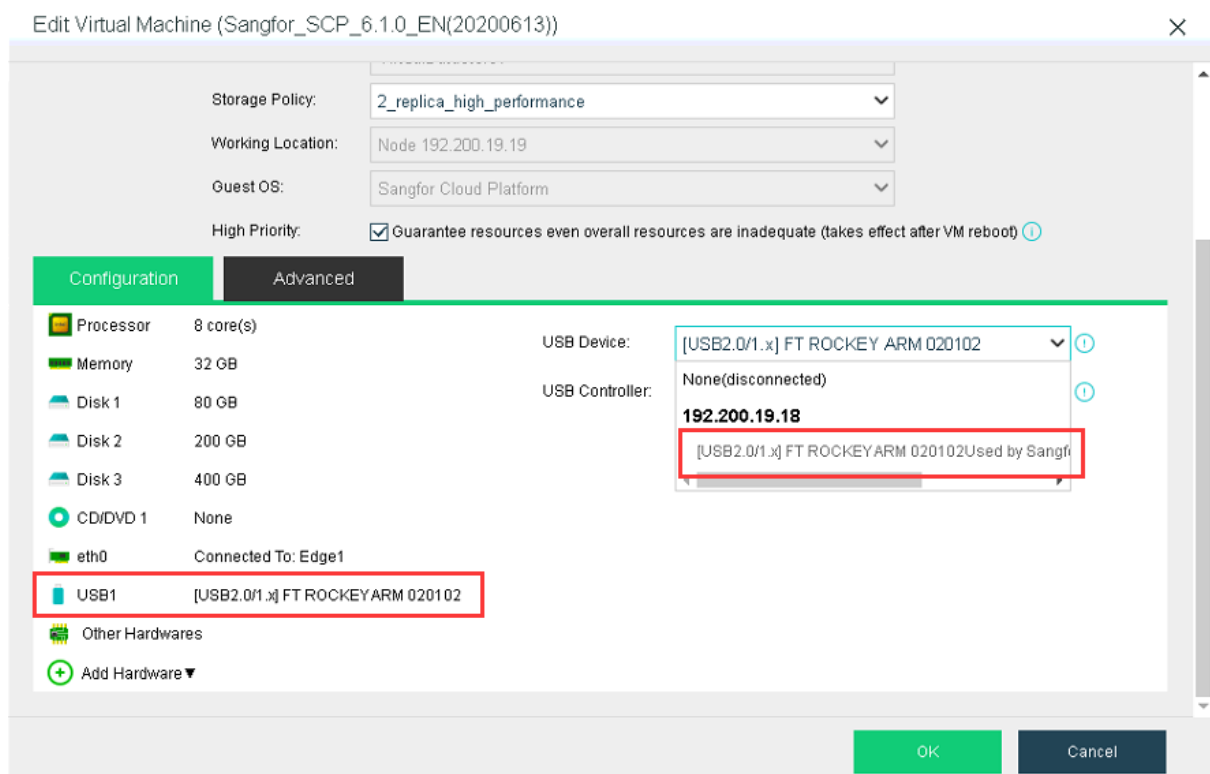
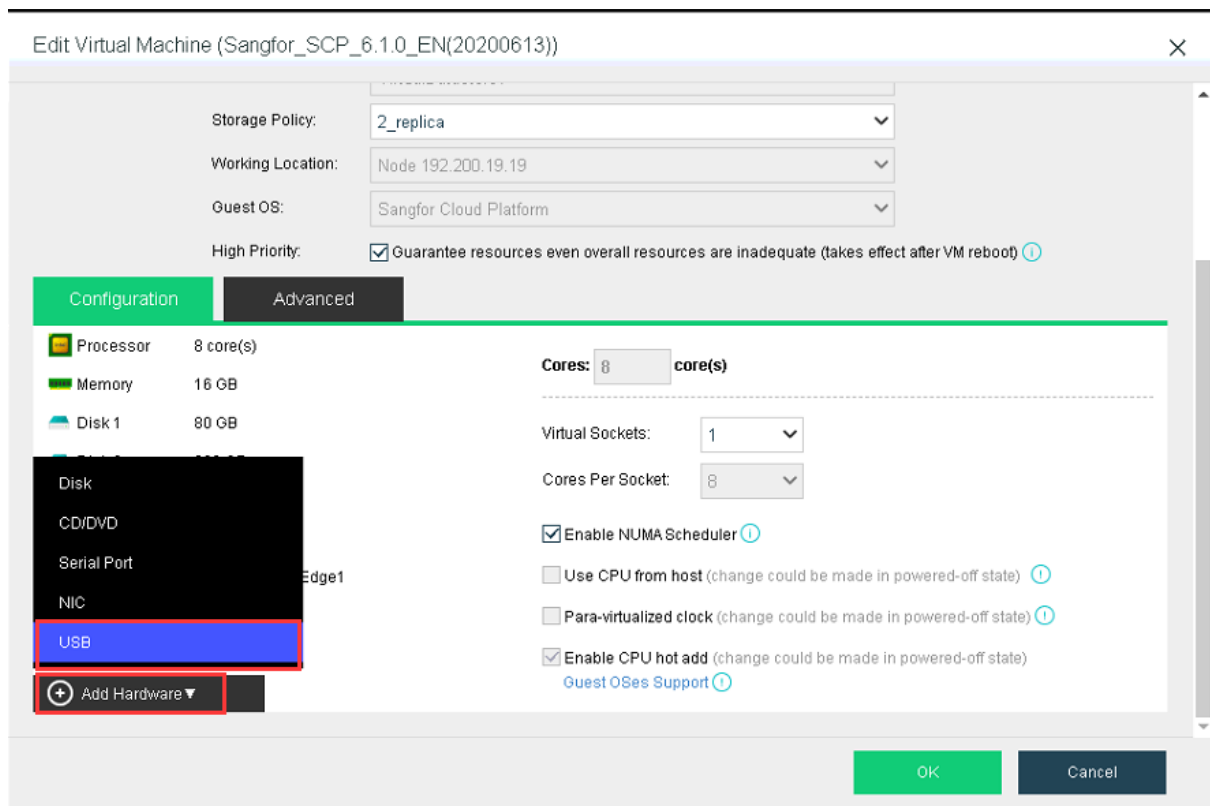
Activate SCP and give authorization to the cluster for networking.

[Prerequisites]

1. HCI Platform and SCP virtual machine have been accurately deployed
2. Prepare the key id and key for activation

[Operating Steps]

1. Click SCP virtual machine > **【Edit】** > add USB hardware > map key to the virtual machine;



2. After successful mapping, log in the home page of SCP, click 【System】 > 【Licensing】 > 【General】 to enter the authorization page of SCP, click 【Edit License Key】 and select the ready authorization document (with a .lic suffix),

Sangfor Cloud Platform

Home Resources Reliability Center Operations Center Monitoring **System**

General System Maintenance Recycle Bin System Security

Licensing

- Platform License
- Cluster License
- Security Resource License

Services

Date and Time

Network Settings

Sangfor Cloud Platform (Sangfor Cloud Computing Mgmt Software)

License Key: **Activated** [Export License Key File](#) [Update](#) License Expiration: **2020-08-04**

Key ID: 50291D3202001103 Device ID:

User: test Status:

Version: V6.1.0 Free Services:

License Type: Enterprise Edition

General System Maintenance Recycle Bin System Security

Licensing

Tech Support & Download

Recycle Bin

Login Policies

Services

Tasks

Date and Time

Upgrade

Network Settings

SMTP Server

Authentication

SSO Settings

Customization

Sangfor Cloud Platform

Home Resources Reliability Center Operations Center Monitoring **System**

General System Maintenance Recycle Bin System Security

Licensing

- Platform License
- Cluster License
- Security Resource License

Services

Date and Time

Network Settings

SMTP Server

Authentication

SSO Settings

Customization

Sangfor Cloud Platform (Sangfor Cloud Computing Mgmt Software)

License Key: **Activated** [Export License Key File](#) [Update](#) License Expiration: **2020-08-04**

Key ID: 50291D3202001103 Device ID:

User: test Status: **Licensed**

Version: V6.1.0 Free Services: **Resource Mgmt and Operations**
Centralized Monitoring
Platform Management

License Type: Enterprise Edition Value-Added Services: **Operations Center**

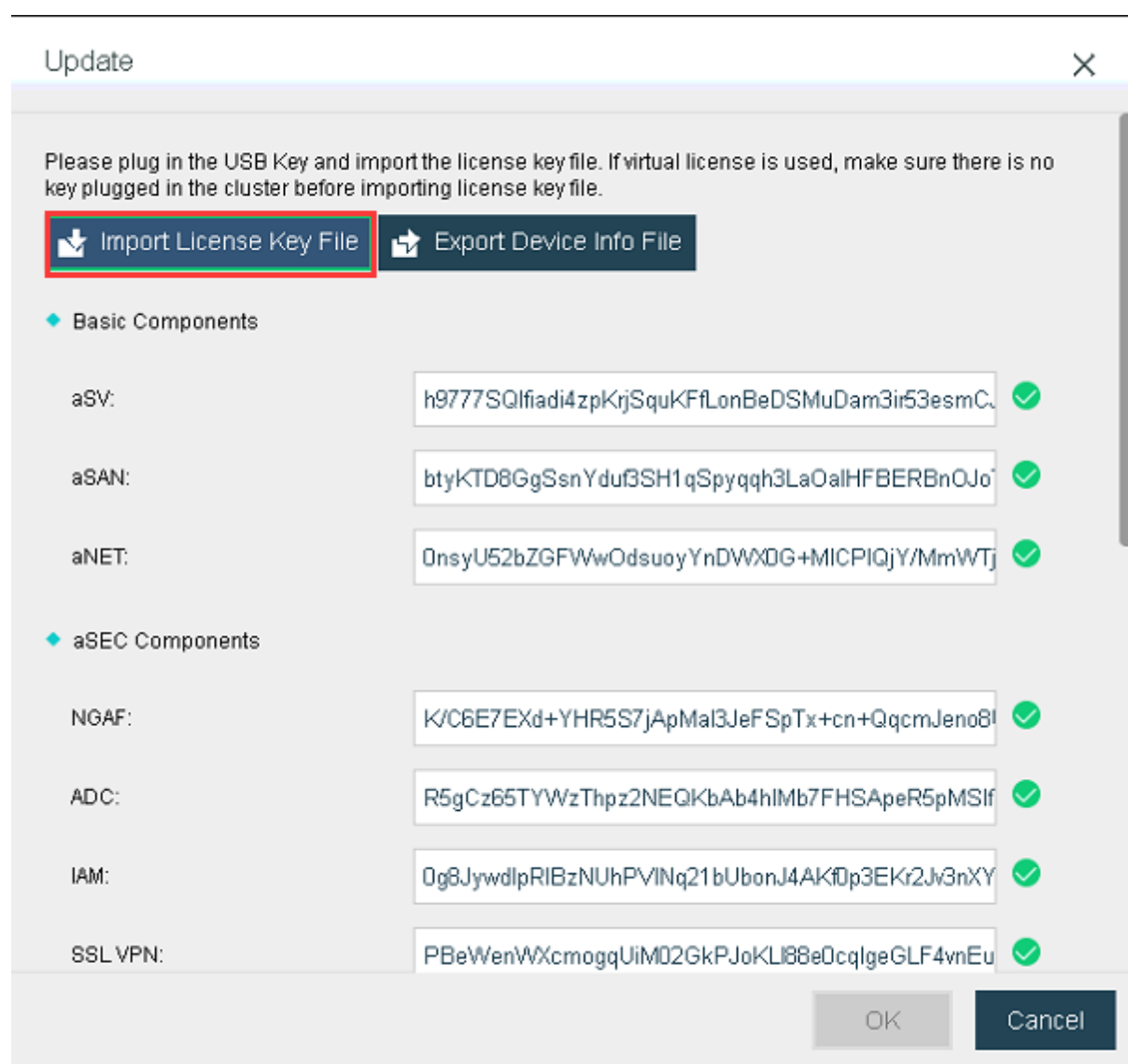
Value-Added Services

aOC (Operations Center)

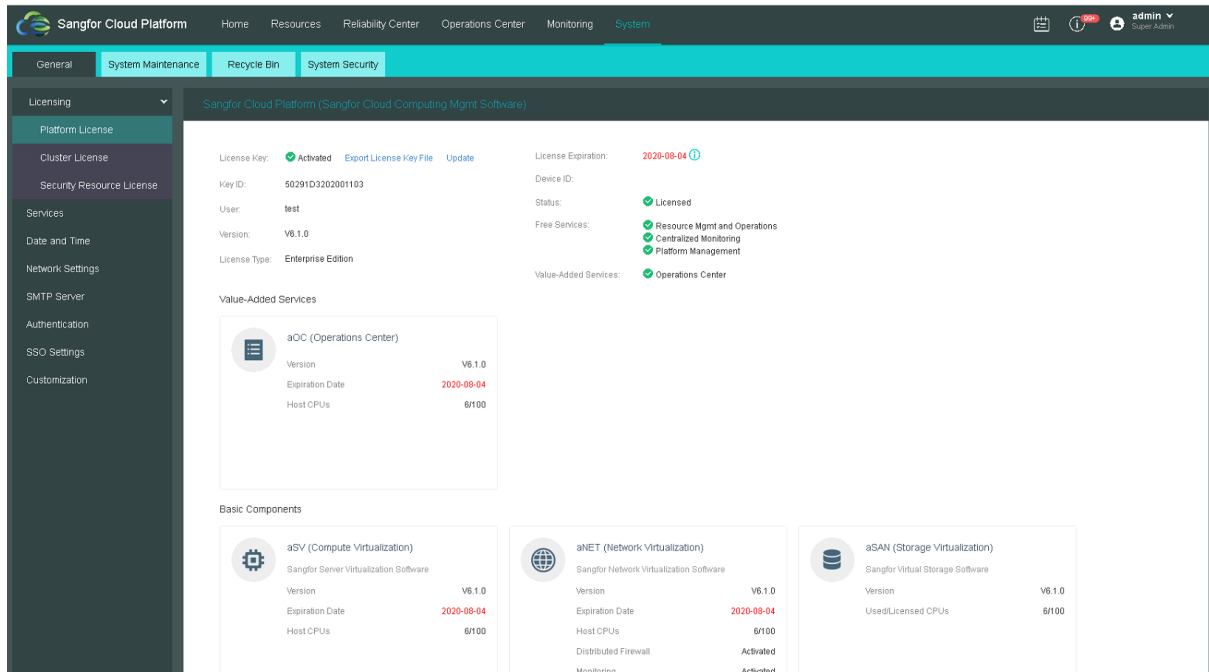
Version V6.1.0

Expiration Date **2020-08-04**

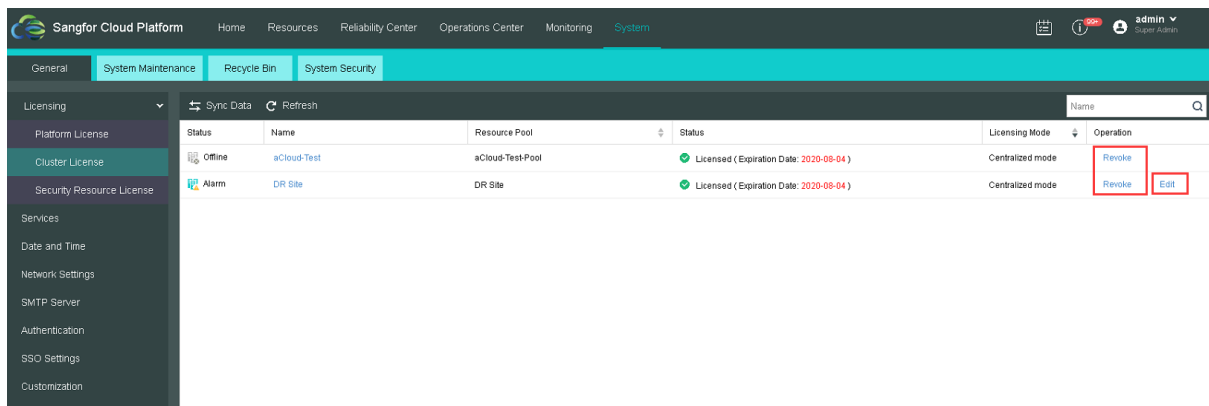
Host CPUs 6/100



After successful import, the information of the corresponding serial number can be viewed;



- Click **【Cluster Licensing】** to license the newly added clusters and also license, revoke or modify the existing clusters;



Click Edit to display the following configuration and you can configure the licensing related to aSV, aNET, aSAN, CDP and aHM of the corresponding clusters on this interface.

Edit Licensing

aSV

CPU:
4
core(s)

CDP

CDP Protected VM:
20

aNET

CPU:
4
core(s)

Distributed Firewall:
Activated

Monitoring:
Activated

aHM

VMware Backed-up VM:
20

VMware vCenter:
Activated

aSAN

CPU :
4
core(s)

aSC

CPU :
Optional
core(s)

aAPI

Licensing:
☐

aGPU

GPU:
Optional

OK
Cancel

- Click **【Security Resources License】** and you can license, view, and edit (only in shutdown mode) the NFV licnesing of the clusters.

Sangfor Cloud Platform									
Home Resources Reliability Center Operations Center Monitoring System									
General System Maintenance Recycle Bin System Security									
Licensing Sync Data Refresh Filter Name									
Platform License	Name	Type	Resource Pool	Cluster	Tenant	Status	Licensing Mode	Operation	
Cluster License	IAM1010	IAM	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing	Power On
Security Resource License	IAM_ST	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	View	Shut Down
Services	ST NOAF2	NOAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	Edit	Power On
Date and Time	Yuan IAM	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	Edit	Power On
Network Settings	K2_S8LVPN	SSL	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing	Power On
SMTP Server	IAM_Node2_YZJ	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	Edit	Power On
Authentication	NOAF0803224814	NOAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	View	Shut Down
SSO Settings	NOAF0309101452	NOAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing	Power On
Customization	demoADC	ADC	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	View	Shut Down
	IAM0319094046	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-09-04)	Centralized mode	View	Shut Down

Only the NFV in shutdown mode can be edited with authorization and you can just click Edit to conduct the licensed editing;

NGAF Licensing

×

Name:

NGAF0920

Config Standard:

Not licensed

▼

Licensed Resources

Branch VPN Sites:

0

SSL VPN Users:

0

Server Access Verification:

0

Mobile VPN Users:

0

Licensed Features

Cross-ISP Access Optimization

IPSec VPN

IPS

Antivirus

Web App Protection

Bandwidth Management

Application Control

Web Filter

Data Leak Protection

APT Detection

RT Vulnerability Scanner

Advanced Functionality

Software Upgrade

IPS Vulnerability Database

WAF Signature Database

Anti-Virus Database

Malware Signature Database

Data Leak Protection Database

URL Database

Application Signature Database

Neural-X New Threat Update

Neural-X Unknown Threat Update

Website Protection

Configuration Standard

Performance	Free	Total	Usage
100Mbps	92	100	<div><div></div></div> 8%
200Mbps	90	100	<div><div></div></div> 10%
400Mbps	87	100	<div><div></div></div> 13%
800Mbps	96	100	<div><div></div></div> 4%
1.6Gbps	100	100	<div><div></div></div> 0%

Licensed Resource Usage

Resources	Free	Total	Usage
Branch VPN Sites	6	100	<div><div></div></div> 94%
SSL VPN Users	4	100	<div><div></div></div> 96%
Server Access Veri...	9	100	<div><div></div></div> 91%
Mobile VPN Users	10	100	<div><div></div></div> 90%

OK

Cancel

Click Shut Down and you can continue to shut down the corresponding NFV:

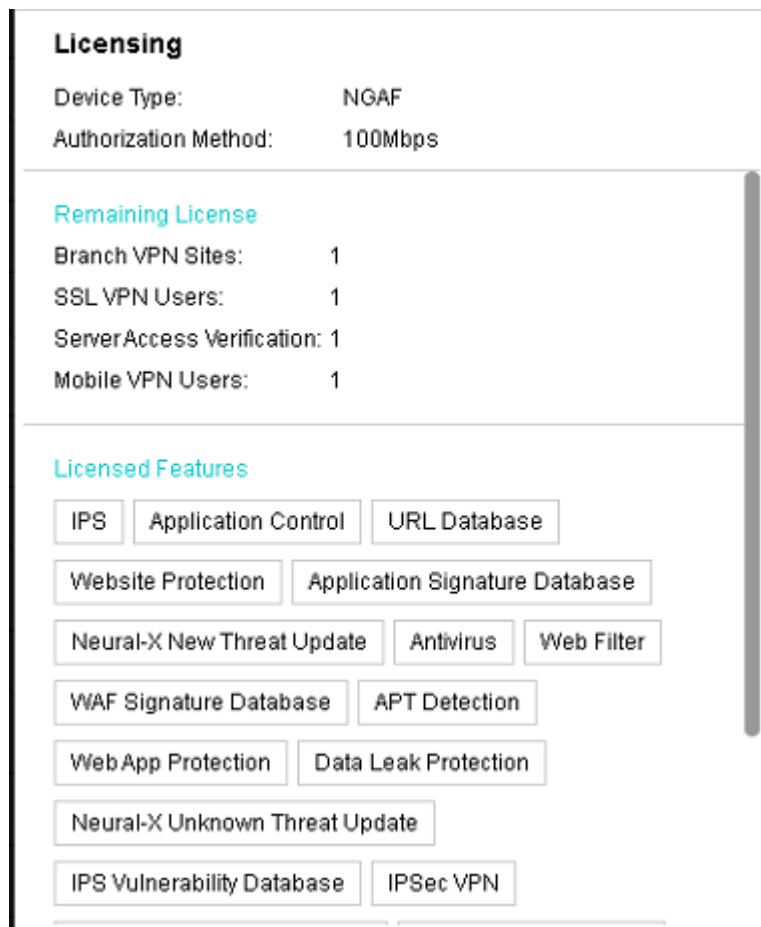
Name	Type	Cluster	Licensing	Operation
▲ DC zone (HCI)				
NGAF4	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
SC NGAF	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down

Click Power On and you can start the corresponding NFV:

NGAF1	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Edit Power On
NGAF2	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Edit Power On
NGAF3	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Edit Power On

Click View and you can view the authorization details of the corresponding NFV:

▲ DC zone (HCI)				
NGAF4	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
SC NGAF	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
NGAF1	NGAF	DC (CTI)	✔ Licensed (Expiration Date: 2018-12-26)	View Deallocate Edit Power On



2.5 Add Physical Resources

[Function Description]

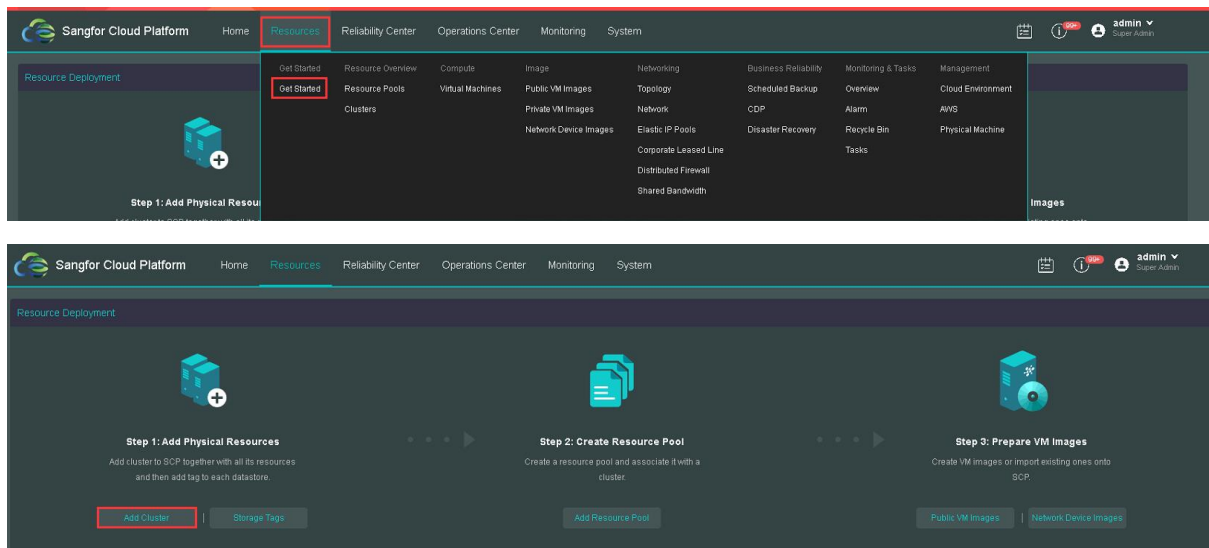
SANGFOR SCP supports the heterogeneous management of many HCI clusters and also the heterogeneous management of VMware data centers. When the unified management of many data centers or many clusters is required, SCP shall be deployed to conduct the heterogeneous management of all the clusters.

[Prerequisites]

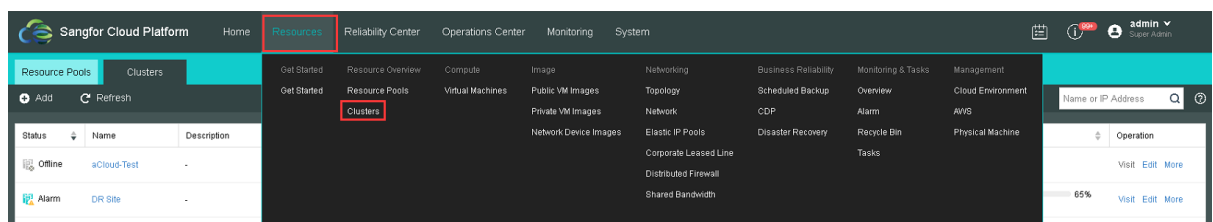
SANGFOR SCP can get access to the network of HCI platforms or VMware platform.

[Operating Steps]

1. Log in the home page of SCP platform, select **【Resources】** > **【Get Started】** and click **Add Cluster**, as given in the following diagram:



Or, select **【Resources】** > **【Clusters】** on the navigation bar of SCP platform and click **Add** on the popped page.



2. Enter the IP, username, password, name, description and type of cluster according to the requirement; keep the default values if the port is unchanged.

For the Licensing mode, select whether it will be centralized or standalone mode.

Centralized Mode: The cluster will be licensed by the SCP.

Standalone Mode: The cluster will be licensed individually at HCI instead of centralized licensing on SCP.

Resource Overview > Cluster > Add Cluster

1 Basics 2 Tag Storage 3 Confirm

Cluster Name: Demonstration Cluster

Description:

Cluster Type: HCI

Cluster IP: 192.168.20.2

☒ Cluster IP verification required

Uncheck this option if cluster IP address will be translated according to NAT rule.

Username: admin

Password: *****

Port: 443

Licensing Mode: ☒ Centralized mode ☐ Standalone Mode ⓘ

Once confirmed, it cannot be changed.

Next Cancel

- You can set the different tags for the different storage volumes according to the actual situations of the clusters; the default tags include: "high performance", "good performance" and "large capacity". These tags can be changed according to the actual situation. You can do the editing on the page **【Cluster】 > 【Tags】**. After the setting, click Next

Resource Overview > Cluster > Add Cluster

1 Basics 2 Tag Storage 3 Confirm

Tag this datastore according to actual disk performance so that virtual machines can be created on the corresponding datastore based on storage tag.

Storage Tags Refresh

Status	Name	Storage Type	Capacity	Storage Tag ⓘ
Normal	VirtualDatastore1	Virtual Storage	3.52 TB	High Performance

Prev Next Cancel

Cluster > Tags

Refresh ⓘ How to Tag Storage Performance

Tag	Description	Operation
High Perf...	Tag for SSD with high IO speed, to create high-end virtual machines	Edit
Good Per...	Good IO read/write performance. Generally, this tag is for old-styled storage.	Edit
Large Ca...	Fair IO read/write performance but large capacity and high security, cost-effective	Edit

- Finally, Check that the information is correct and then click **OK**

Resource Overview > Cluster > Add Cluster

✓

Basics

✓

Tag Storage

3

Confirm

Cluster Name: Testing Cluster

Description:

Cluster Type: HCI

Cluster IP: 192.168.20.180

Port: 443

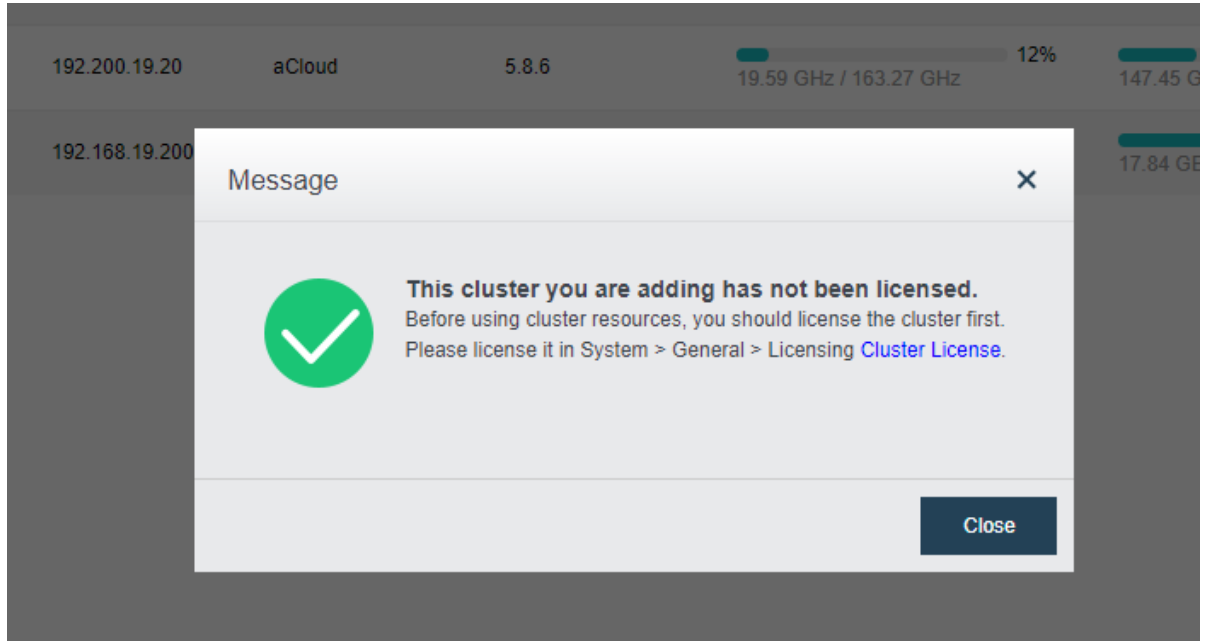
Licensing Mode: Centralized mode

Tagging Storage:

Name	Storage Type	Performance	Capacity
VirtualDatastore1	Virtual Storage	High Performance	3.52 TB

Prev OK Cancel

5. If the cluster is added to this SCP cloud platform for the first time, licensing message will be given. Conduct the licensing in reference to "Section 2.5 Licensing".



2.6 HCI Cluster Licensing

[Function Description]

After HCI cluster is successfully added on SANGFOR SCP platform, it shall be authorized to guarantee the availability of HCI cluster service, or the authorization of HCI cluster shall be cancelled and HCI cluster shall be edited. All these operations are carried out on this page.

Virtual key function has been added to HCI version 6.1.0. It allows HCI to be authorized without the physical USB key which might be damaged during the delivery progress.

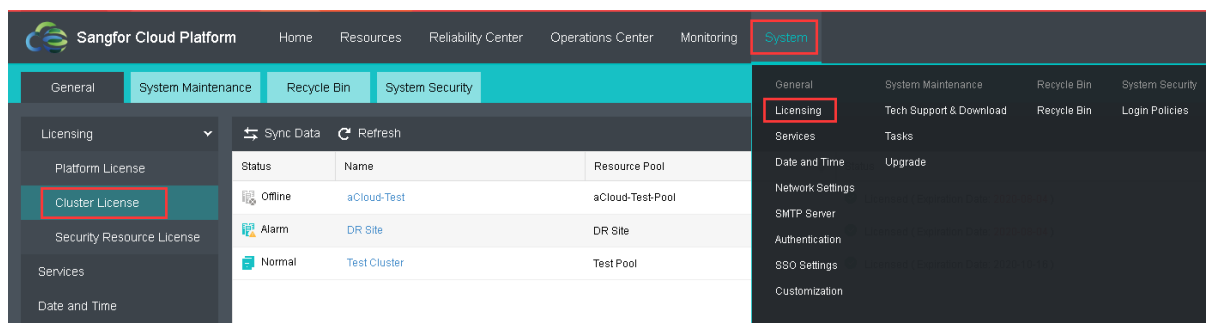
[Prerequisites]

SANGFOR SCP has been imported, licensed and activated and the authorization is sufficient for HCI clusters under the heterogeneous management.

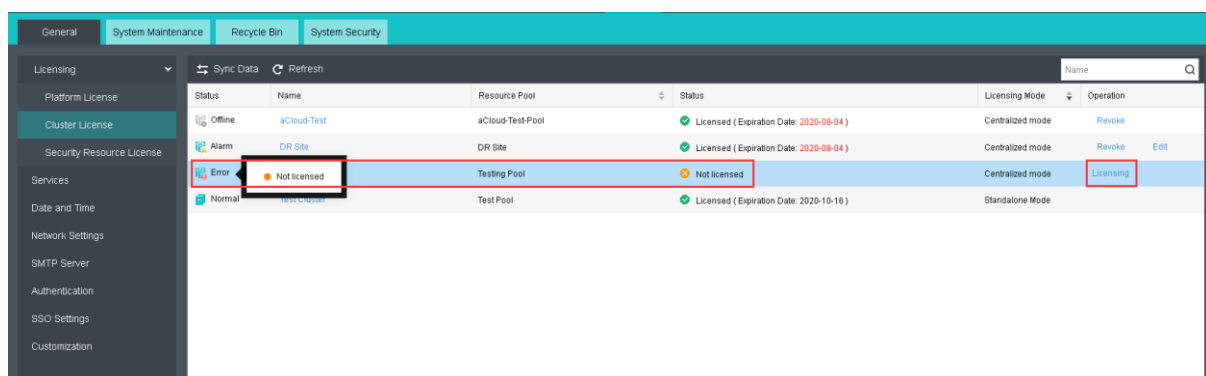
[Operating Steps]

Physical Key

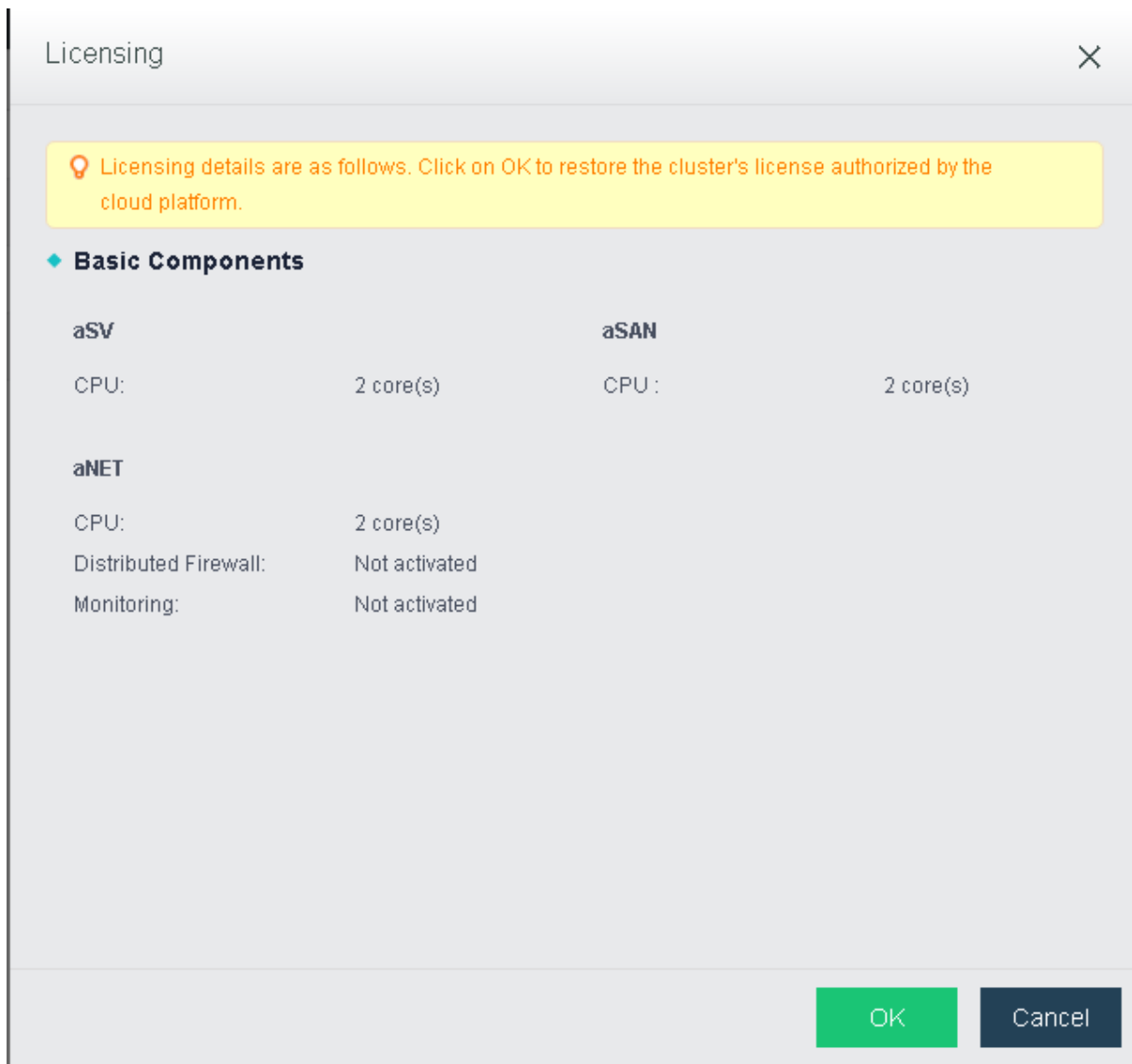
1. Log in the home page of SCP platform, select **【System】** > **【Cluster Licensing】**, check the licensed clusters and click **Licensing** to license the clusters.



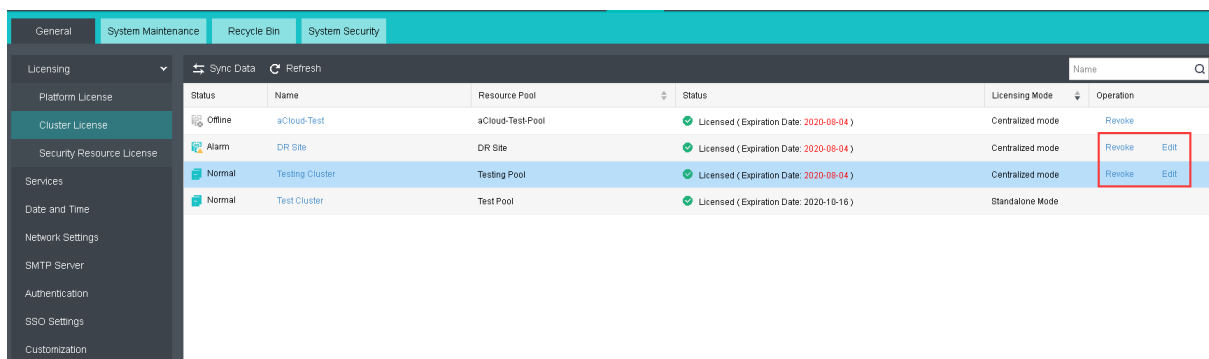
2. Click **【Licensing】** on the right side of the clusters in an abnormal state;



Click **OK** to complete the licensing;

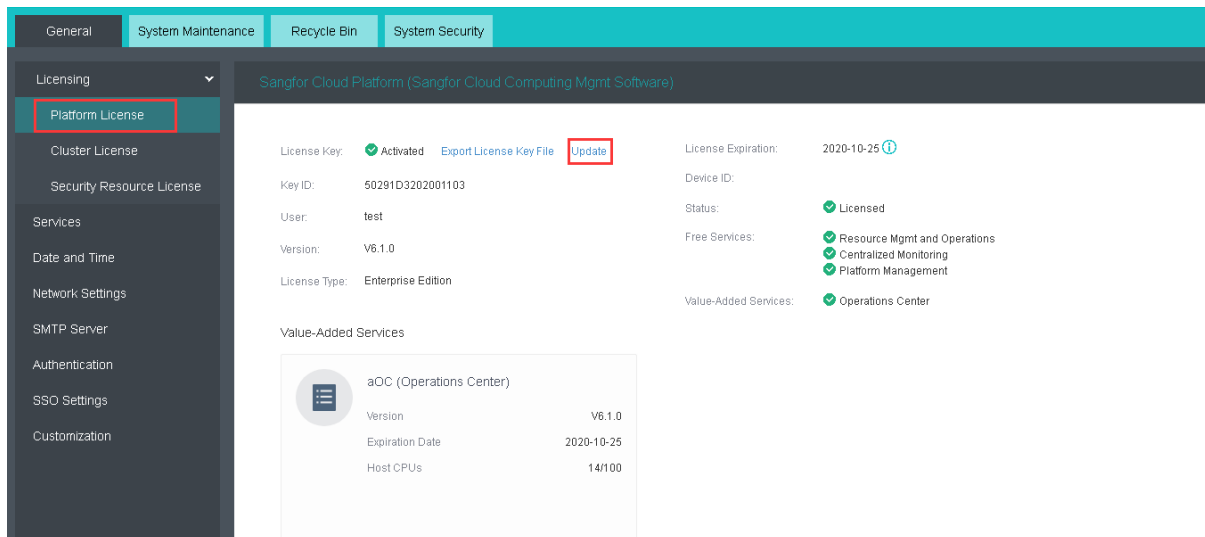


- After licensing success, you can revoke and edit the licensing of clusters on the licensing interface.

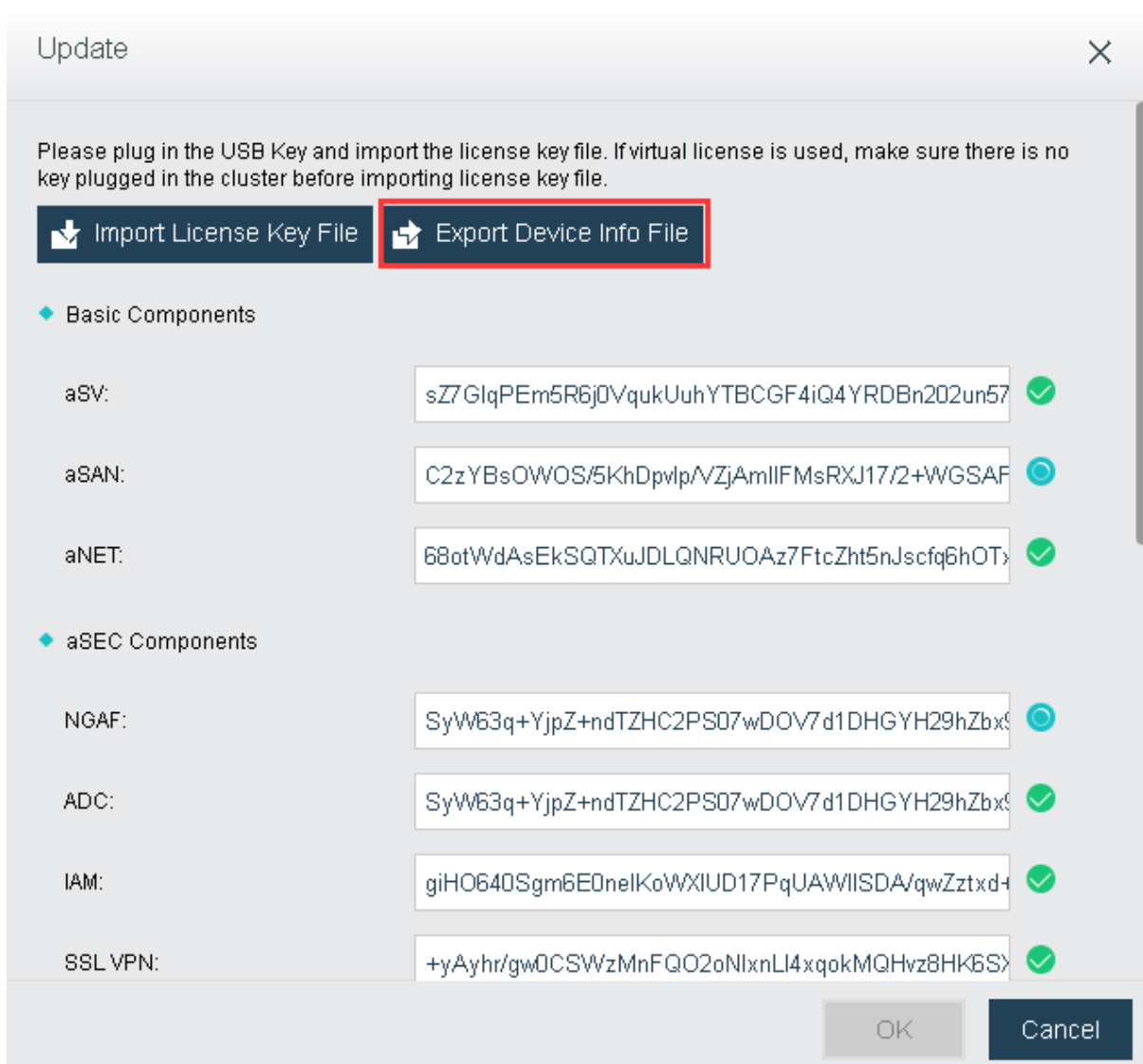


Virtual Key

- Log in the home page of SCP platform, select **【System】 > 【Cluster Licensing】** , click <Update> for the device info.



2. Click on the <Export Device Info File> and you will be prompt to download the device info file.



3. After that, provide this file to the corresponding Sangfor personnel for them to apply for the license file.

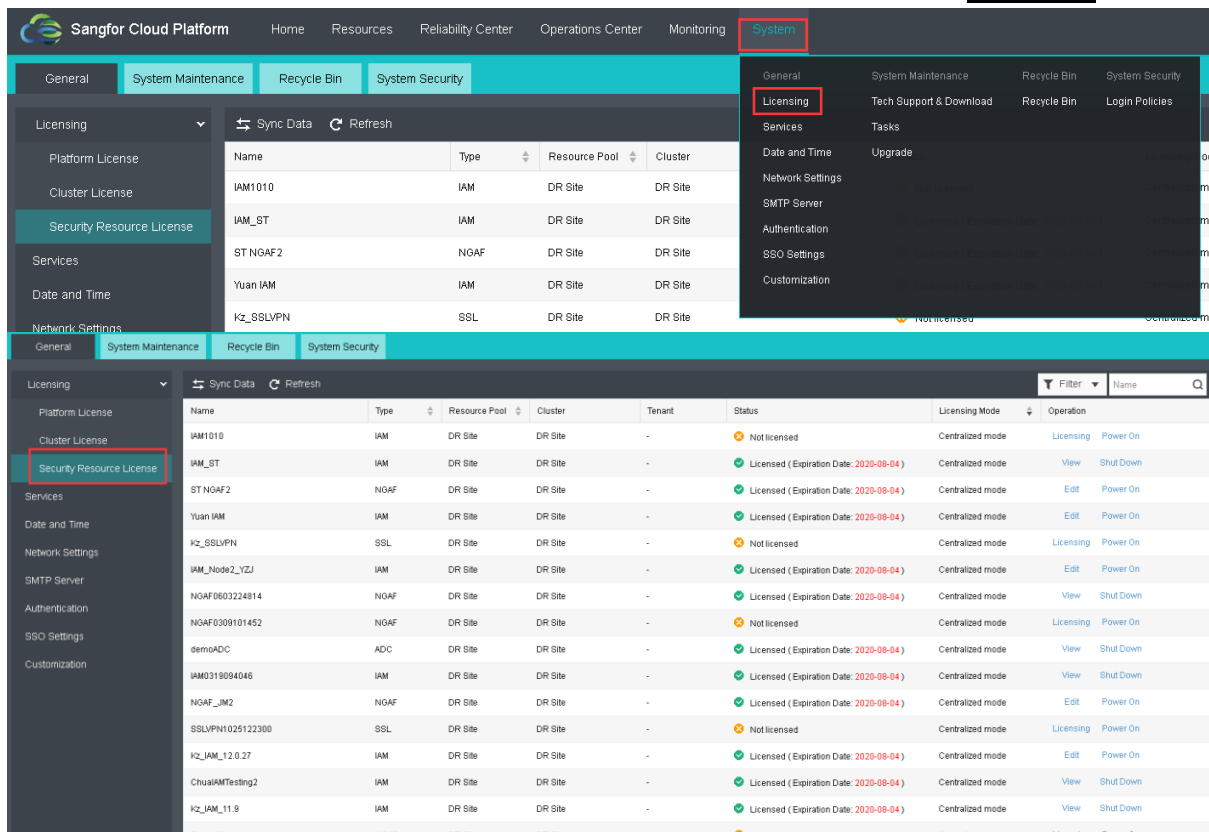
- Once the application has been approved or processed, the license file will be generated.
- Import the license file for the licensing.

2.7 Security Resource Licensing

After the HCI cluster is managed by SCP, the virtual network device can only be deployed on the SCP. NFV device requires to authorize through SCP so that the advanced function in NFV can be used normally.

【Steps】

- Select **【System】 > 【Licensing】 > 【Security Resource License】** to check which device is not authorized. Then select unauthorized device and click **Licensing** button.



The screenshot shows the Sangfor Cloud Platform interface. The top navigation bar includes 'Home', 'Resources', 'Reliability Center', 'Operations Center', 'Monitoring', and 'System'. The 'System' menu is highlighted. Below it, the 'Licensing' sub-menu is selected, and the 'Security Resource License' tab is active. A table lists various devices and their licensing status. The 'IAM1010' device is marked as 'Not licensed' and has a 'Licensing' button next to it. The 'IAM_Node2_YZJ' device is marked as 'Licensed' and has an 'Edit' button next to it. The 'IAM11' device is marked as 'Not licensed' and has a 'Licensing' button next to it.

Name	Type	Resource Pool	Cluster	Tenant	Status	Licensing Mode	Operation
IAM1010	IAM	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
IAM_ST	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
ST NGAF2	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
Yuan IAM	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
K2_SSLVPN	SSL	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
IAM_Node2_YZJ	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
NGAF0603224814	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
NGAF0309101452	NGAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
demoADC	ADC	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
IAM0319084046	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
NGAF_JM2	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
SSLVPN1025122300	SSL	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
K2_IAM_12.0.27	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
ChuaIAMTesting2	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
K2_IAM_11.9	IAM	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
FirewallA	NGAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On

- Select unauthorized NFV device and click **licensing** which locate on the right side. After assigning corresponding authorization, click **OK** button.

General
System Maintenance
Recycle Bin
System Security

Licensing
Platform License
Cluster License
Security Resource License
Services
Date and Time
Network Settings
SMTP Server
Authentication
SSO Settings
Customization

Sync Data Refresh
Filter ngaf

Name	Type	Resource Pool	Cluster	Tenant	Status	Licensing Mode	Operation
STNGAF2	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
NGAF0603224814	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
NGAF0309101452	NGAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
NGAF_JM2	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
NGAF0717	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down
NGAF0920	NGAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
STNNGAF	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
ST_NGAF1	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	Edit Power On
NGAF0303210439	NGAF	DR Site	DR Site	-	Not licensed	Centralized mode	Licensing Power On
STWANO NGAF	NGAF	DR Site	DR Site	-	Licensed (Expiration Date: 2020-08-04)	Centralized mode	View Shut Down

NGAF Licensing

Name: NGAF0309101452
Config Standard: Not licensed

Licensed Resources
Branch VPN Sites: 0
SSL VPN Users: 0
Server Access Verification: 0
Mobile VPN Users: 0

Licensed Features
Cross-ISP Access Optimization IPSec VPN IPS Antivirus Web App Protection
Bandwidth Management Application Control Web Filter Data Leak Protection
APT Detection RT Vulnerability Scanner Advanced Functionality Software Upgrade
IPS Vulnerability Database WAF Signature Database Anti-Virus Database
Malware Signature Database Data Leak Protection Database URL Database
Application Signature Database Neural-X New Threat Update
Neural-X Unknown Threat Update Website Protection

Configuration Standard
Performance Free Total Usage
100Mbps 92 100 8%
200Mbps 90 100 10%
400Mbps 87 100 13%
800Mbps 96 100 4%
1.6Gbps 100 100 0%

Licensed Resource Usage
Resources Free Total Usage
Branch VPN Sites 6 100 94%
SSL VPN Users 4 100 96%
Server Access Veri... 9 100 91%
Mobile VPN Users 10 100 90%

OK Cancel

3. The licensing of the authorized NFV can be view and edit.

DC zone (HCI)

NGAF4	NGAF	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
SC NGAF	NGAF	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
IAM4	IAM	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
IAM4_ken	IAM	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
IAM5	IAM	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
SC IAM	IAM	DC (CTI)	Licensed (Expiration Date: 2018-12-26)	View Deallocate Shut Down
test AF	NGAF	DC (CTI)	Not licensed yet	Licensing Power On

2.8 Division of Resource Pool

[Function Description]

After the heterogeneous management of clusters, the existing different clusters shall be divided into the different Resource Pools. The concept of Resource Pool is oriented based on

data center. Generally, Resource Pools can include many clusters. The division of the logical conception of Resource Pool can effectively help the administrator to manage the platform.



: Only one cluster can be added in the Resource Pool of this version.

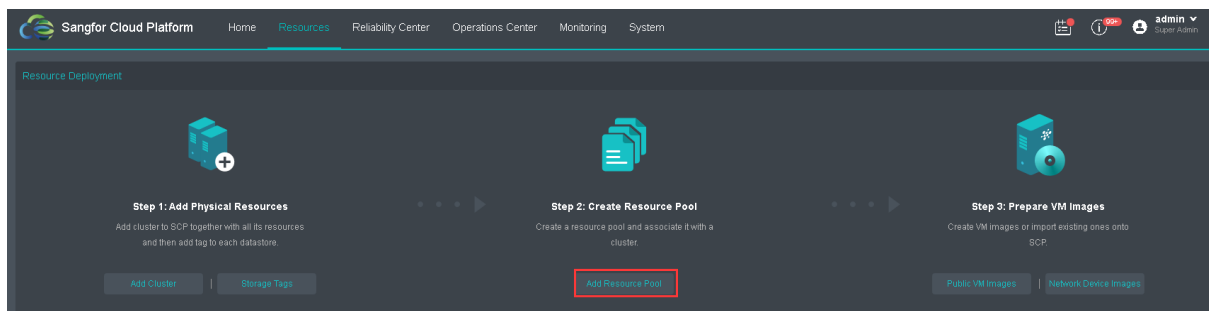
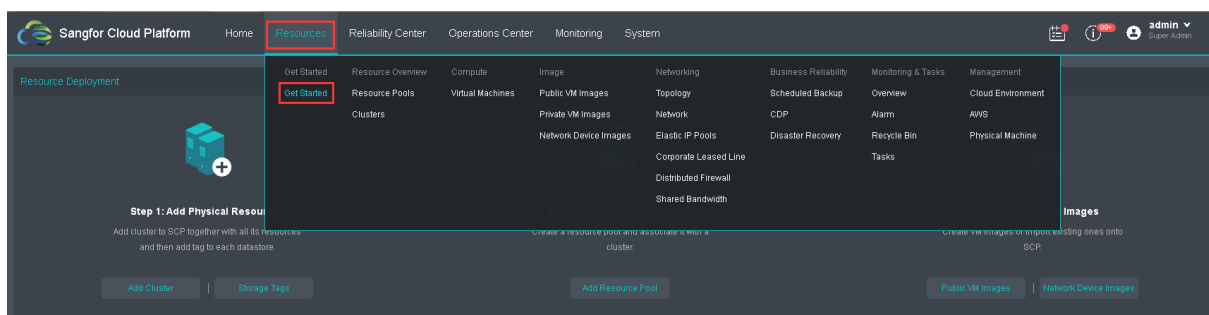
[Prerequisites]

SANGFOR SCP has added the cluster successfully.

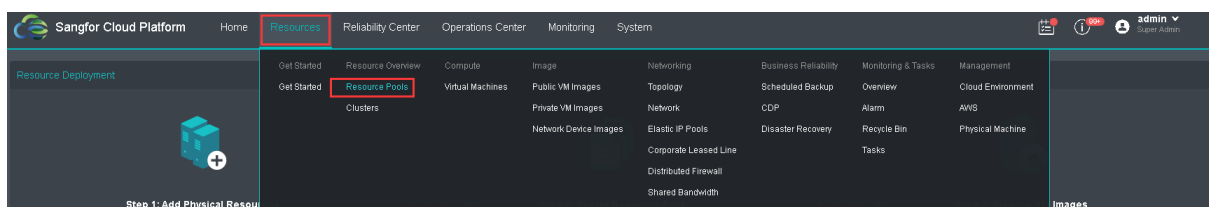
[Operating Steps]

1. Log in the home page of SCP and click **【Resources】** > **【Get Started】**, as given in the following diagram:

Click **Create Resource Pool** in Step 2, as given in the following figure:



Or, click **【Resources】** > **【Resource Pool】** and click **⊕ Create** on the popped page to enter the of Resource Pool configuration:



Name	Description	Pool Type	Version No.	Associated Tenants	CPU Allocation	Mem Allocation	Storage Usage	Operation
OR Site	-	Shared	6.1.0	10	1337 core(s) / 120 core(s) 1114%	1.97 TB / 448 GB 450%	20.36 TB / 30.93 TB 66%	Sync Data Edit More
aCloud-Test-Pool	-	Shared	6.0.1.R1	1	6 core(s) / 0 core(s) 0%	6 GB / 0 B 0%	0 B / 0 B 0%	Sync Data Edit More
Test Pool	-	Shared	6.1.0	-	173 core(s) / 150 core(s) 115%	309 GB / 672 GB 45%	6.89 TB / 36.26 TB 19%	Sync Data Edit More
Testing Pool	-	Shared	6.0.1	-	0 core(s) / 0 core(s) 0%	0 B / 0 B 0%	0 B / 7.04 TB 0%	Sync Data Edit More

2. Fill in the relevant information and click **Next**

Resource Overview > Resource Pools > Add Res...

1

Basics

Name:

Description:

Resource Type: ▼

Pool Type: ▼ ⓘ

Resource Type: Select the type whether it is for HCI or VMware.

Pool Type:

There are 2 types of Pool type:

- Shared: For Shared Pool, it can be assigned to multiple tenants.
- Dedicated: For Dedicated Pool, it can only be assigned to single tenant.

3. Select the cluster to be added to this ResourcePool. If there is no suitable cluster, you can click Add Cluster. See "Section 3.2.1" for the operation details. After configuration completion, click **Next**;

Resource Overview > Resource Pools > Add Res...

Basics Select Cluster Confirm

Select and add a cluster to this resource pool. No cluster available? [Add Cluster](#)

Name	Cluster Type	Description	Cluster IP	CPU Usage	Memory Usage	Storage Usage
Testing Cluster	HCI	-	192.168.20.180	8.6 GHz / 52.82 GHz 12%	22.28 GB / 64 GB 35%	0 B / 7.04 TB 0%

Prev Next Cancel

4. Check that the information is correct and then click **OK**.

Resource Overview > Resource Pools > Add Res...

Basics Select Cluster Confirm

Name: Testing Pool

Description:

Resource Type: HCI

Cluster:

Name	Cluster Type	Description	Cluster IP
Testing Cluster	HCI	-	192.168.20.180

Prev OK Cancel

5. After completion, you can see the added Resource Pool and then you can edit and delete this Resource Pool.

Resource Pools Clusters

HCI VMware

New Refresh Resource pool name

Name	Description	Pool Type	Version No.	Associated Tenants	CPU Allocation	Mem Allocation	Storage Usage	Operation
DR Site	-	Shared	6.1.0	10	1337 core(s) / 120 core(s) 1114%	1.97 TB / 448 GB 450%	20.36 TB / 30.93 TB 66%	Sync Data Edit More
sCloud-Test-Pool	-	Shared	6.0.1.R1	1	6 core(s) / 0 core(s) 0%	6 GB / 0 B 0%	0 B / 0 B 0%	Sync Data Edit More
Test Pool	-	Shared	6.1.0	-	173 core(s) / 150 core(s) 115%	309 GB / 672 GB 45%	6.9 TB / 36.26 TB 19%	Sync Data Edit More
Testing Pool	-	Shared	6.0.1	-	0 core(s) / 0 core(s) 0%	0 B / 0 B 0%	0 B / 7.04 TB 0%	Sync Data Edit More Quota Limit Delete

2.9 Upgrade

[Function Description]

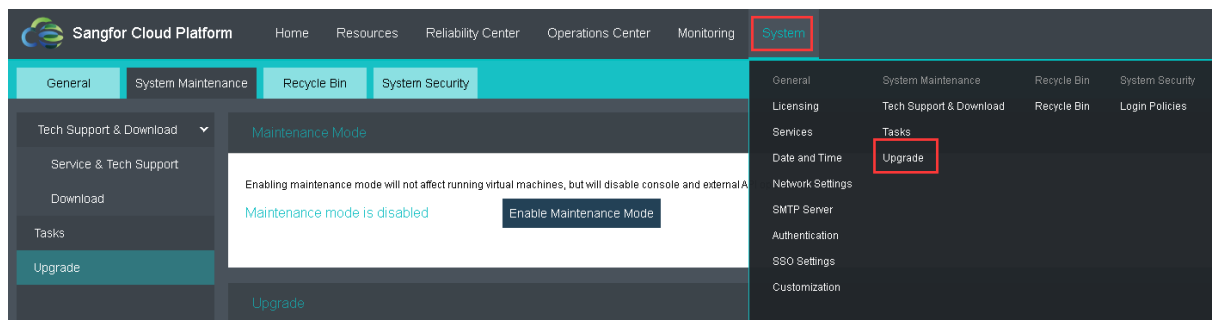
SANGFOR SCP6.1.0 has executed the perfection of the cloud platform in many aspects; in case of using demands, Upgrade Package can be loaded to upgrade SCP so that the versions of SCP and HCI can be consistent.

[Prerequisites]

1. SCP of other earlier versions have been deployed in the platform.
2. Upgrade Package of SCP cloud platform image has been prepared.

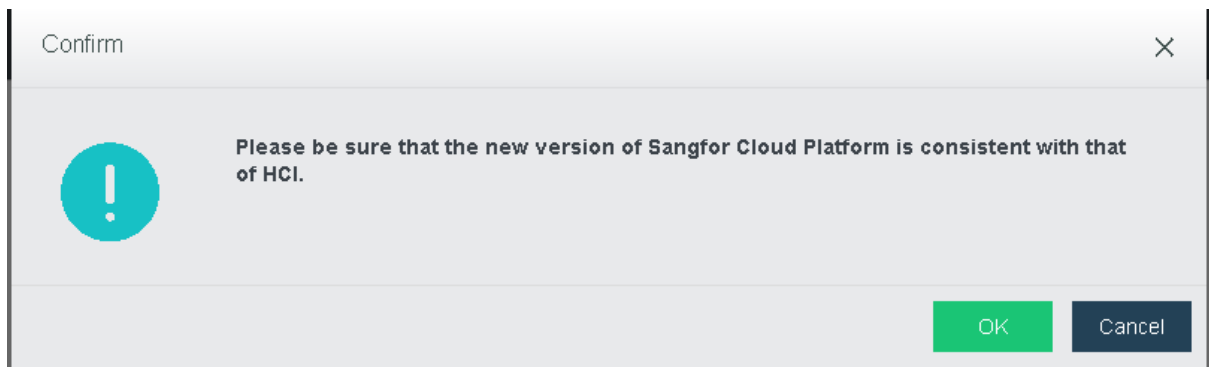
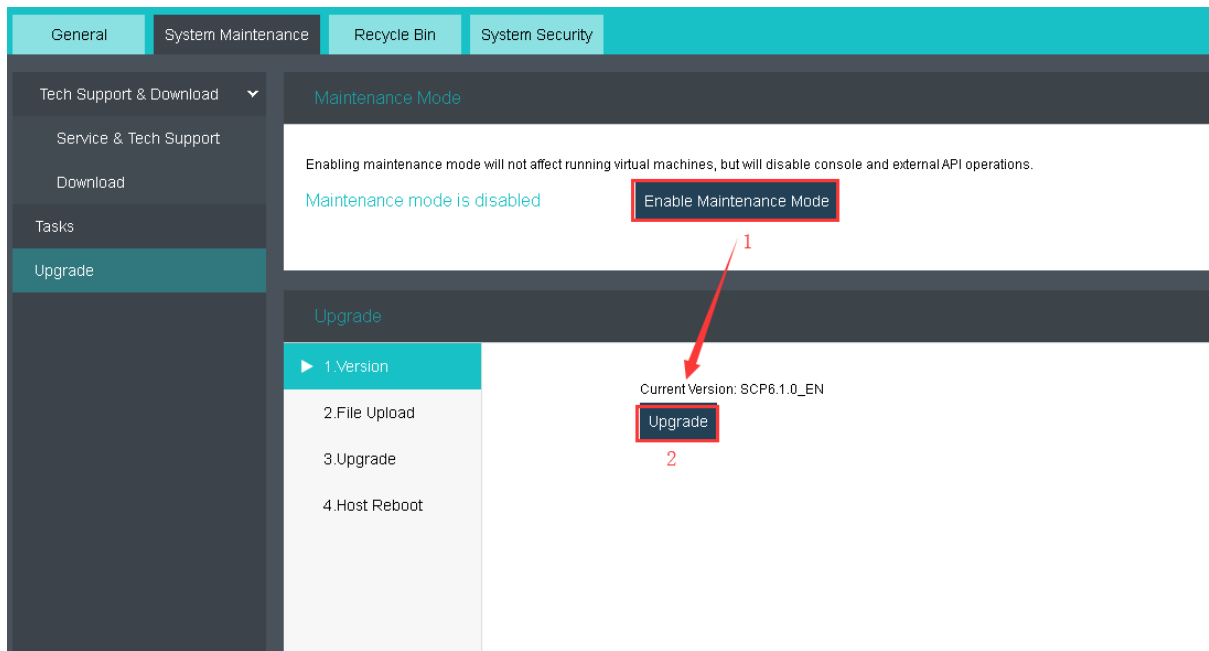
[Operating Steps]

1. Log in the home page of SCP platform console and click **【System】** > **【Upgrade】** to enter the device upgrade page;

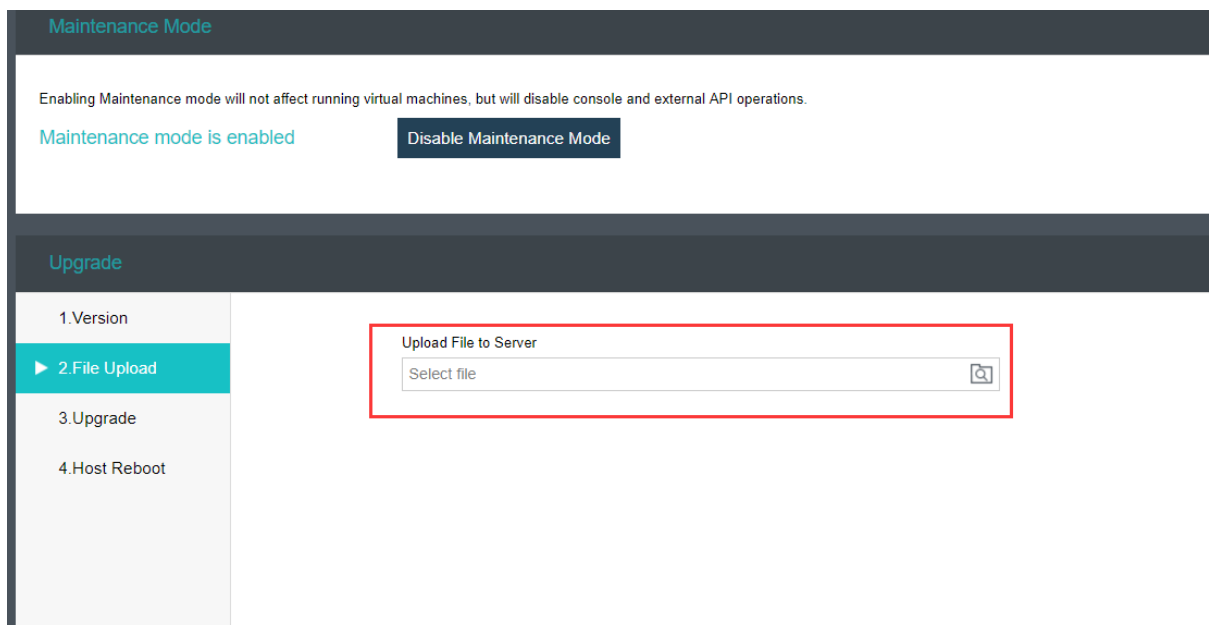


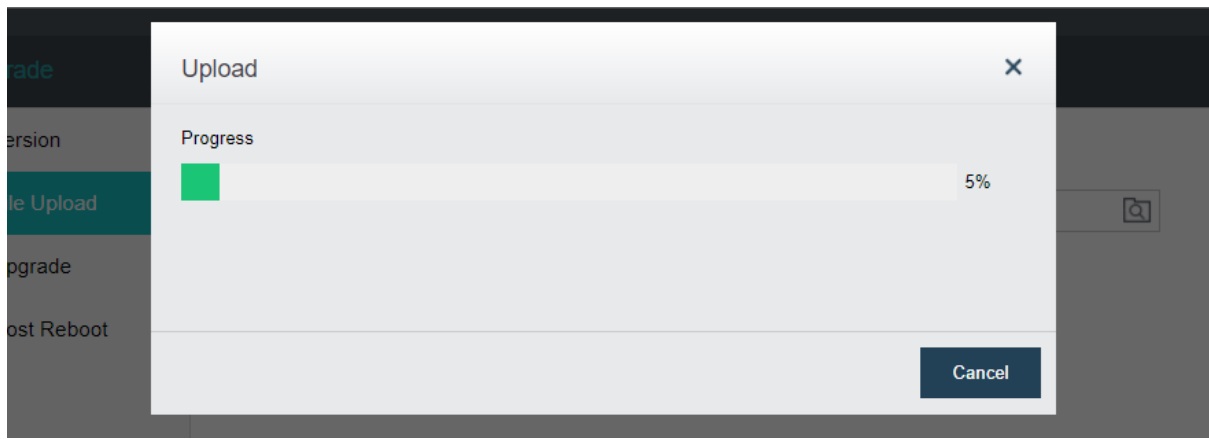
2. In order to upgrade the firmware version of SCP, it is required to enable maintenance mode first by clicking on the **【Enable Maintenance Mode】**. After maintenance mode is enabled, you can now proceed to **【Upgrade】**;

Notes: Before entering maintenance mode, make sure currently there is no task executing else it will be preventing the SCP to enter maintenance mode.

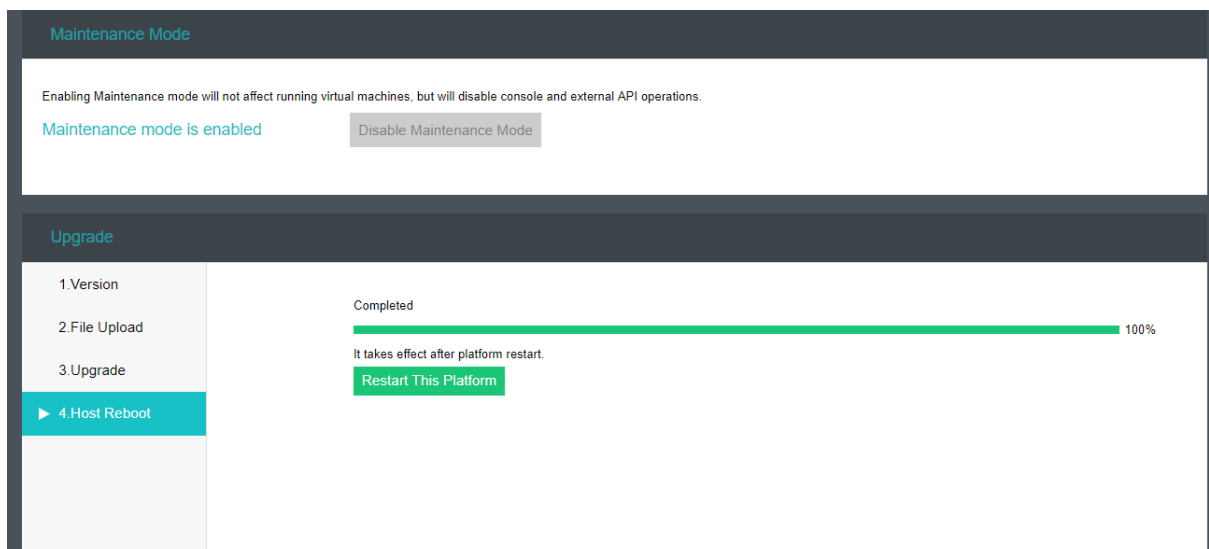


3. Select Upload file to server;





4. After uploading successfully, click **Start**; after upgrading success, restart SCP virtual machine;



: During the upgrading process, the clusters in running will not be influenced; however, SCP disables any other operations.

2.10 Delete Cluster

[Function Description]

If any cluster under the heterogeneous management of SCP is required no more due to some demands, SCP cluster can be deleted.

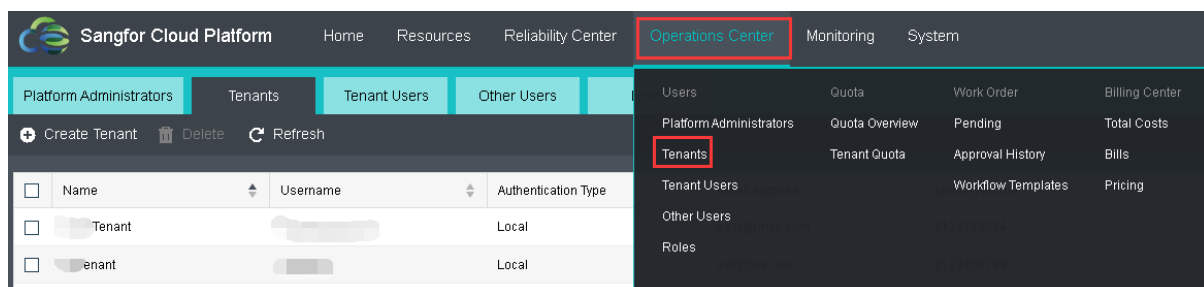
[Prerequisites]

If the cluster shall be deleted, the corresponding Resource Pool shall also be deleted.

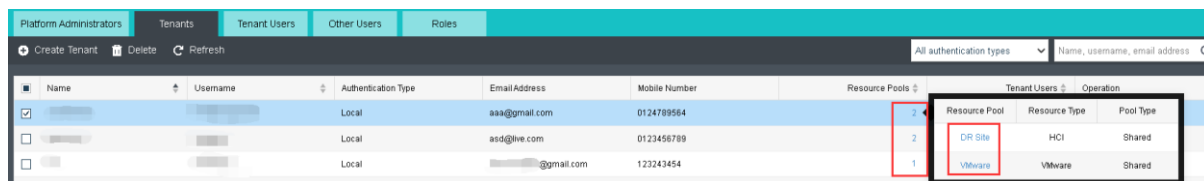
If the Resource Pool shall be deleted, the Tenants and users created in the Resource Pool shall also be deleted.

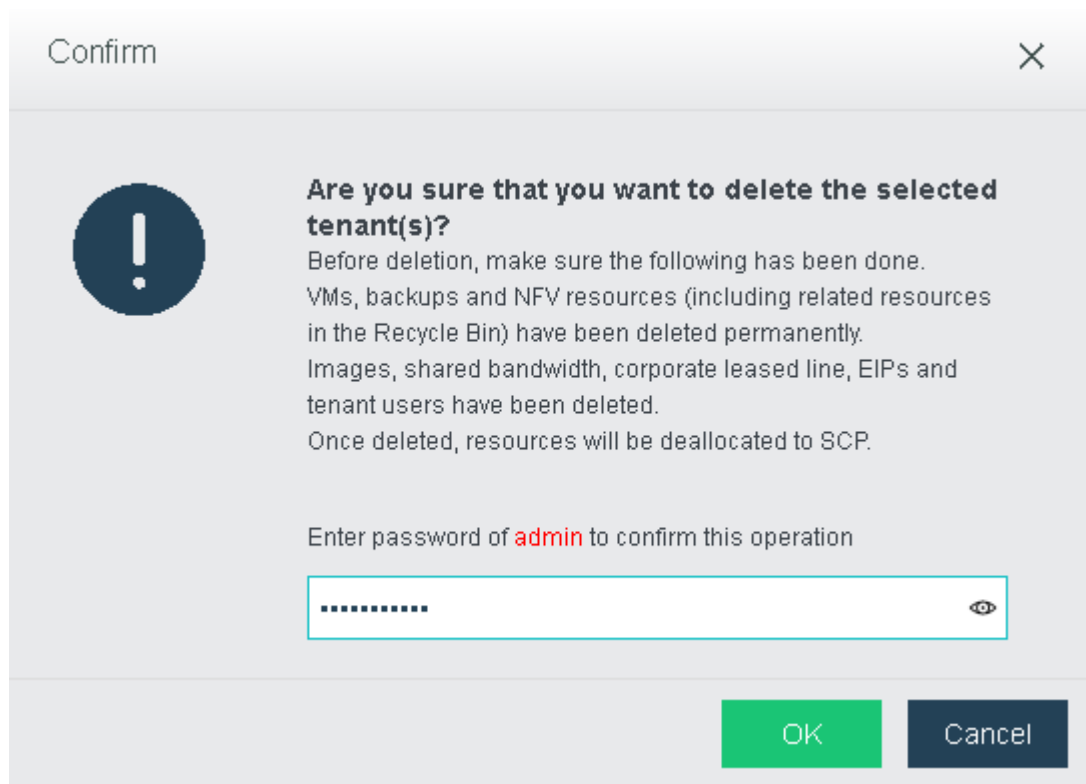
[Operating Steps]

1. Log in the home page of SCP platform console and click **【Operations Center】** > **【Tenants】** to enter the Tenant management interface:



2. Check the **【Resource Pool】** to find all the associated users to be deleted, remove the corresponding user and click **OK**;





- After all the associated Tenants of the Resource Pool to be deleted are removed, click **【 Resources 】 > 【 Resource Pool 】** and you can find that Delete of the corresponding Resource Pool changes to be clickable; Click Delete and then click OK on the popped window;

The screenshot shows the Sangfor Cloud Platform interface. The top navigation bar includes 'Home', 'Resources', 'Reliability Center', 'Operations Center', 'Monitoring', and 'System'. The 'Resources' section is expanded, showing 'Resource Pools' and 'Clusters'. The 'Resource Pools' sub-section is selected, displaying a table of resource pools.

Name	Description	Pool Type	Version No.	Associated Tenants	CPU Allocation	Mem Allocation	Storage Usage	Operation
DR Site	-	Shared	6.1.0	11	1337 core(s) / 120 core(s) 1114%	1.97 TB / 448 GB 450%	20.36 TB / 30.93 TB 66%	Sync Data Edit More
sCloud-Test-Pool	-	Shared	6.0.1.R1	1	6 core(s) / 0 core(s) 0%	6 GB / 0 B 0%	0 B / 0 B 0%	Sync Data Edit More
Test Pool	-	Shared	6.1.0	-	173 core(s) / 150 core(s) 115%	308 GB / 672 GB 45%	6.98 TB / 36.26 TB 19%	Sync Data Edit More
Testing Pool	-	Shared	6.0.1	-	0 core(s) / 0 core(s) 0%	0 B / 0 B 0%	0 B / 7.04 TB 0%	Sync Data Edit More

The 'Testing Pool' row is highlighted in blue. A 'Delete' button is visible in the bottom right corner of the interface.

Confirm

Are you sure that you want to delete the resource pool?

This operation will disassociate resource pool with cluster(s) and licensing of cluster.

Enter password of **admin** to confirm this operation

.....

OK

Cancel

- Click **【Resources】** > **【Clusters】** to find the cluster to be deleted, click “More”-“Delete” and then click **OK** on the popped window to delete the cluster, as shown in the following diagram:

Status	Name	Description	Resource Pool	Cluster IP	Cluster Type	Version	CPU Usage	Memory Usage	Storage Usage	Operation
Offline	aCloud-Test	-	aCloud-Test-Pool	192.168.20.180	HCI	6.0.1 R1	4.23 GHz / 52.92 GHz	22.57 GB / 64 GB	0 B / 7.04 TB	Visit Edit More
Error	Testing Cluster	-	-	192.168.20.180	HCI	6.0.1	4.23 GHz / 52.92 GHz	22.57 GB / 64 GB	0 B / 7.04 TB	Visit Edit More
Alarm	DR Site	-	DR Site	-	HCI	6.1.0	117.17 GHz / 163.27 GHz	446.44 GB / 512 GB	20.36 TB / 30.93 TB	Visit Edit More
Normal	Test Cluster	-	Test Pool	-	HCI	6.1.0	65.22 GHz / 201.7 GHz	337.48 GB / 768 GB	6.96 TB / 36.26 TB	Visit Edit More
Normal	vcender	vcender	VMware	-	VMware	6.5.0	2.54 GHz / 11.39 GHz	24.87 GB / 31.78 GB	1.23 TB / 1.01 TB	Edit More

Message

Are you sure that you want to delete the cluster (Testing Cluster)?

OK

Cancel

Chapter3 Operation Maintenance and Management

3.1 System

3.1.1 General Configuration

3.1.1.1 Services

[Function Description]

SCP platform supports custom opening and closing of "API" and "Billing Center".

API: SCP external interface service, which can be used for secondary development and docking with third-party cloud computing platforms.

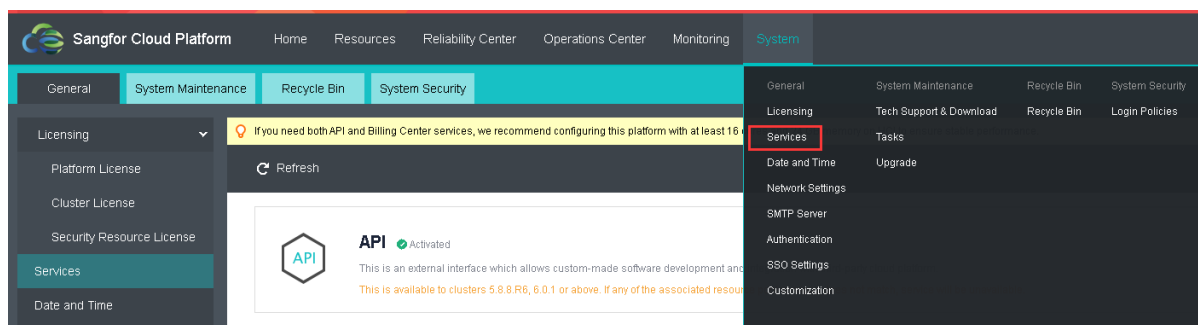
Billing Center: User resource billing and metering service, supporting consumption overview, tenant consumption details query and unit price setting.

[Precautions]

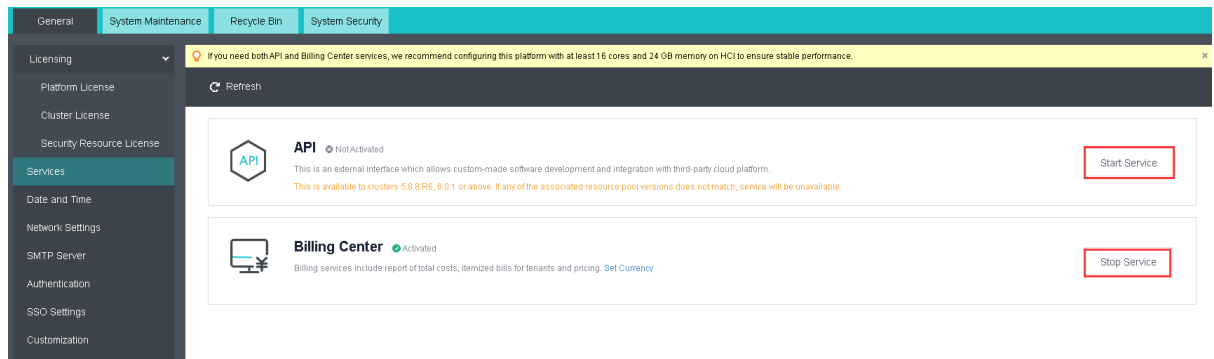
If you need to open the API and the billing center at the same time, it is recommended that you configure the SCP platform in HCI with 16-core CPU, 24G memory or higher to ensure stability.

[Operating Steps]

1. Log in to the SCP platform and select [System] > [Services].



2. Click <Start Service> or <Stop Service> to activate and deactivate the service.



3.1.1.2 Date and Time

[Function Description]

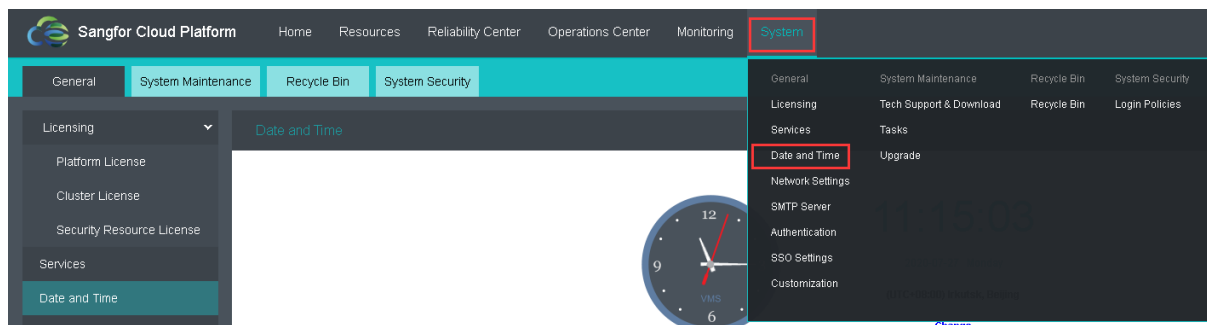
As for time setting of SCP platform, SANGFOR SCP supports both the time customization and the automatic acquisition of NTP time.

[Prerequisites]

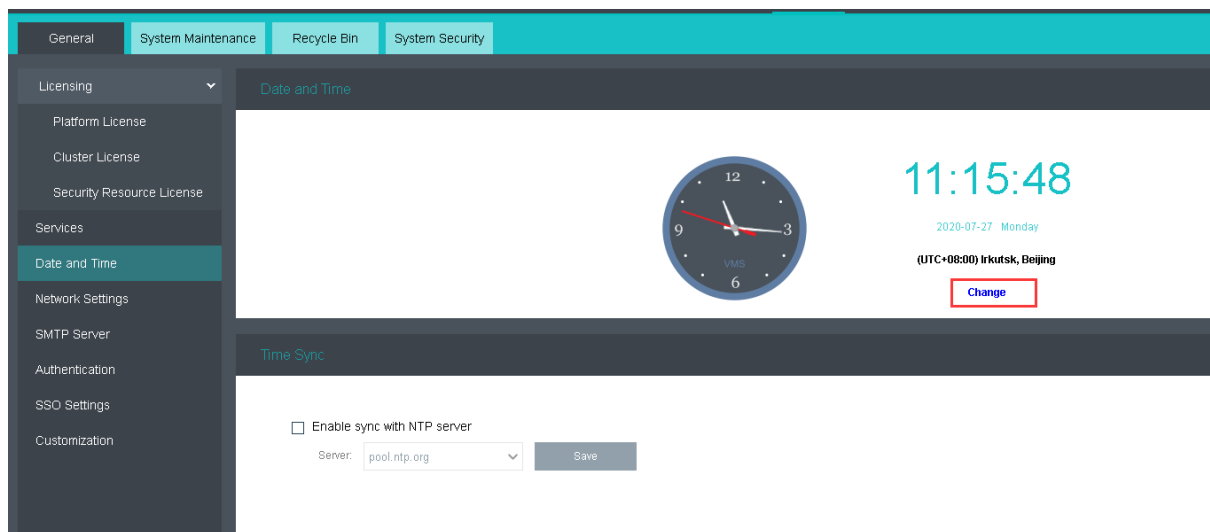
HCI platform and SCP virtual machine of SANGFOR Enterprise-level Cloud have been correctly deployed. If NTP time shall be acquired, it shall be guaranteed that SCP can get access to NTP server network.

[Operating Steps]

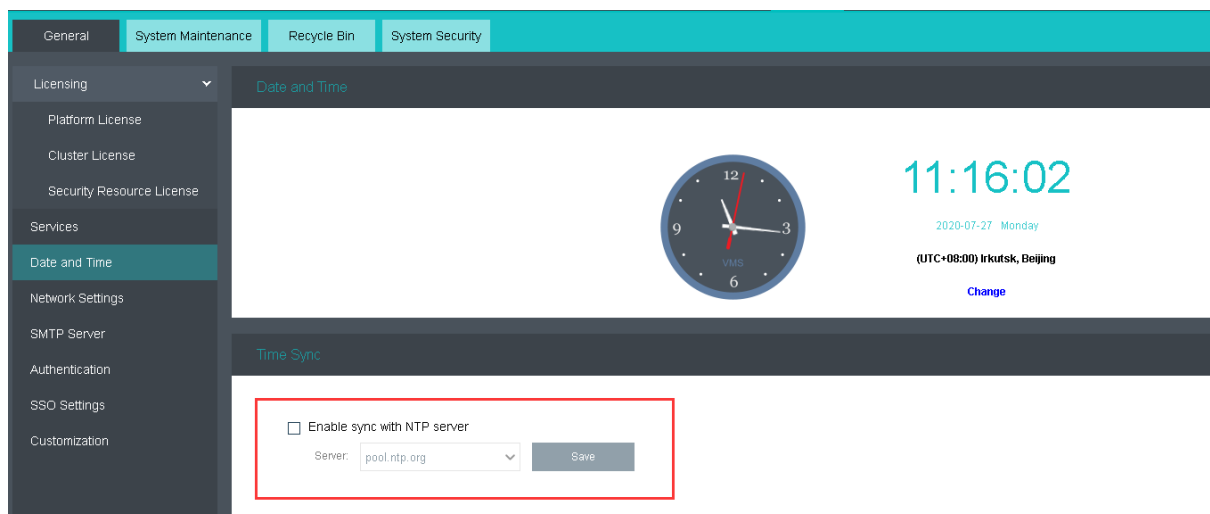
1. Log in the home page of SCP platform and select **【System】** > **【Date and Time】** ;



2. Click **【Change】** to enter the time setting; you can customize the time or get the local time;



3. SANGFOR SCP supports the synchronization of NTP server; please do the setting as required.



3.1.1.3 Network Settings

[Function Description]

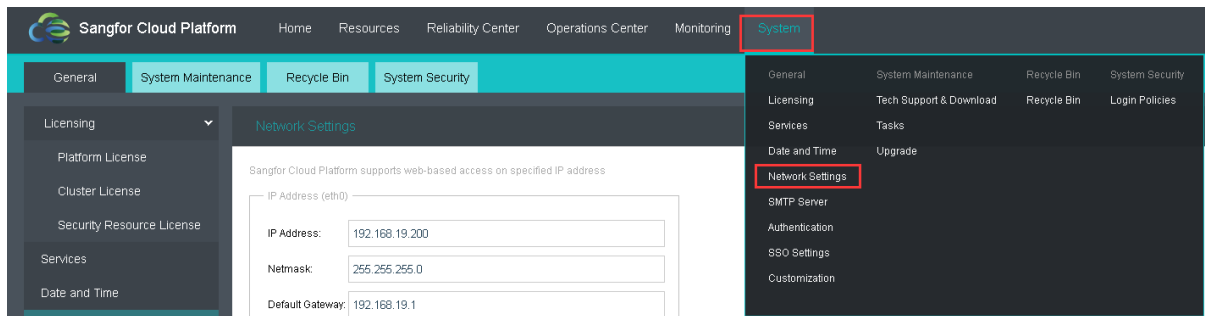
SANGFOR SCP supports the change of IP as required and the DNS and route configuration of SCP via the network satisfying the different scenarios.

[Prerequisites]

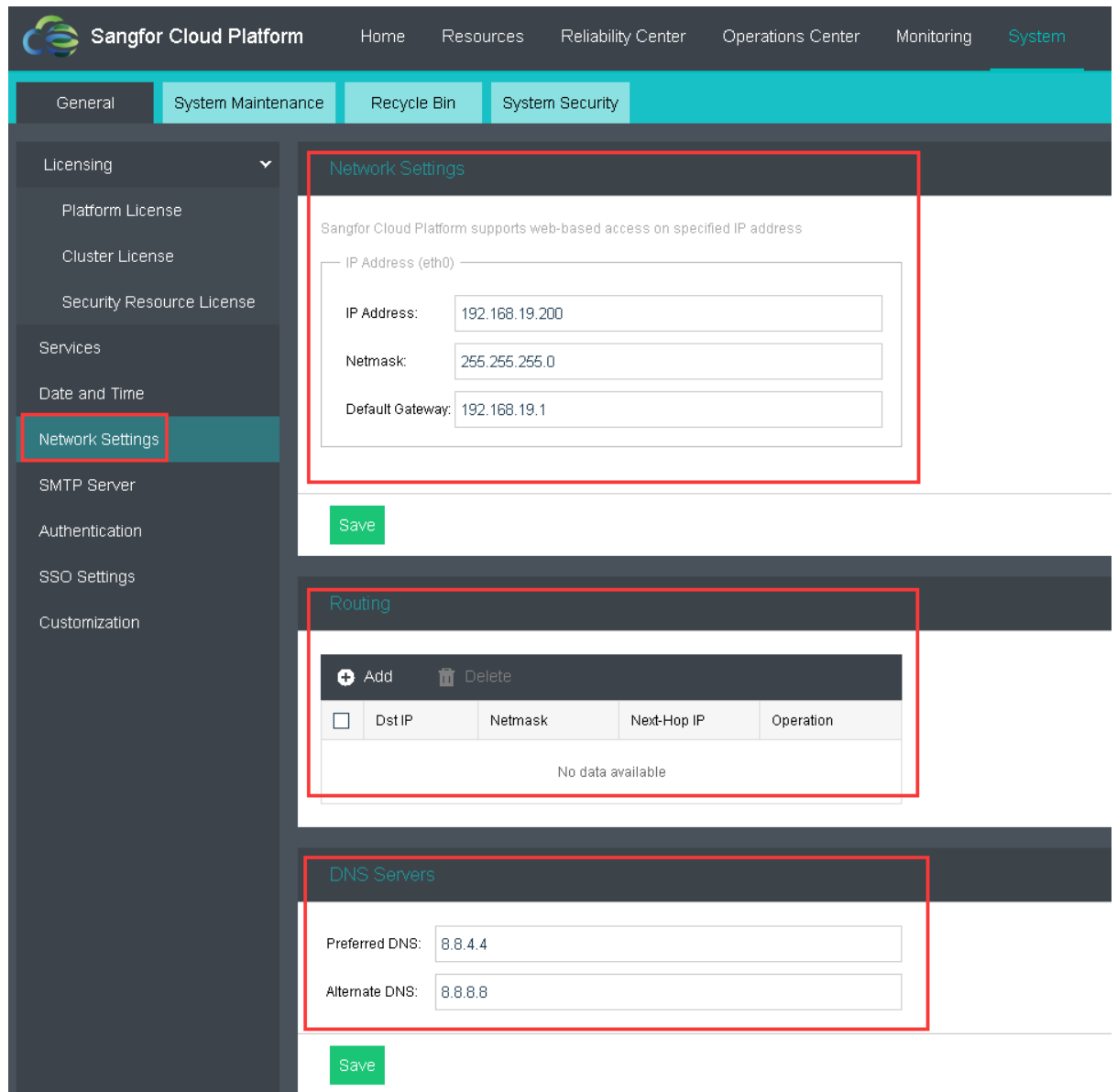
IP and gateway have been correctly planned.

[Operating Steps]

1. Log in the home page of SCP platform and select **【System】 > 【Network Settings】** ;



2. Configure IP according to the actual situation of network and configure the route and the platform DNS according to the requirement.



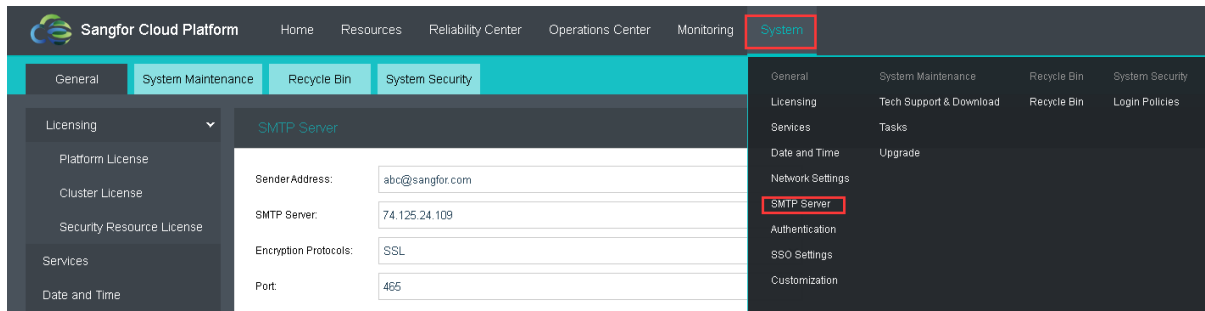
3.1.1.4 SMTP Server

[Function Description]

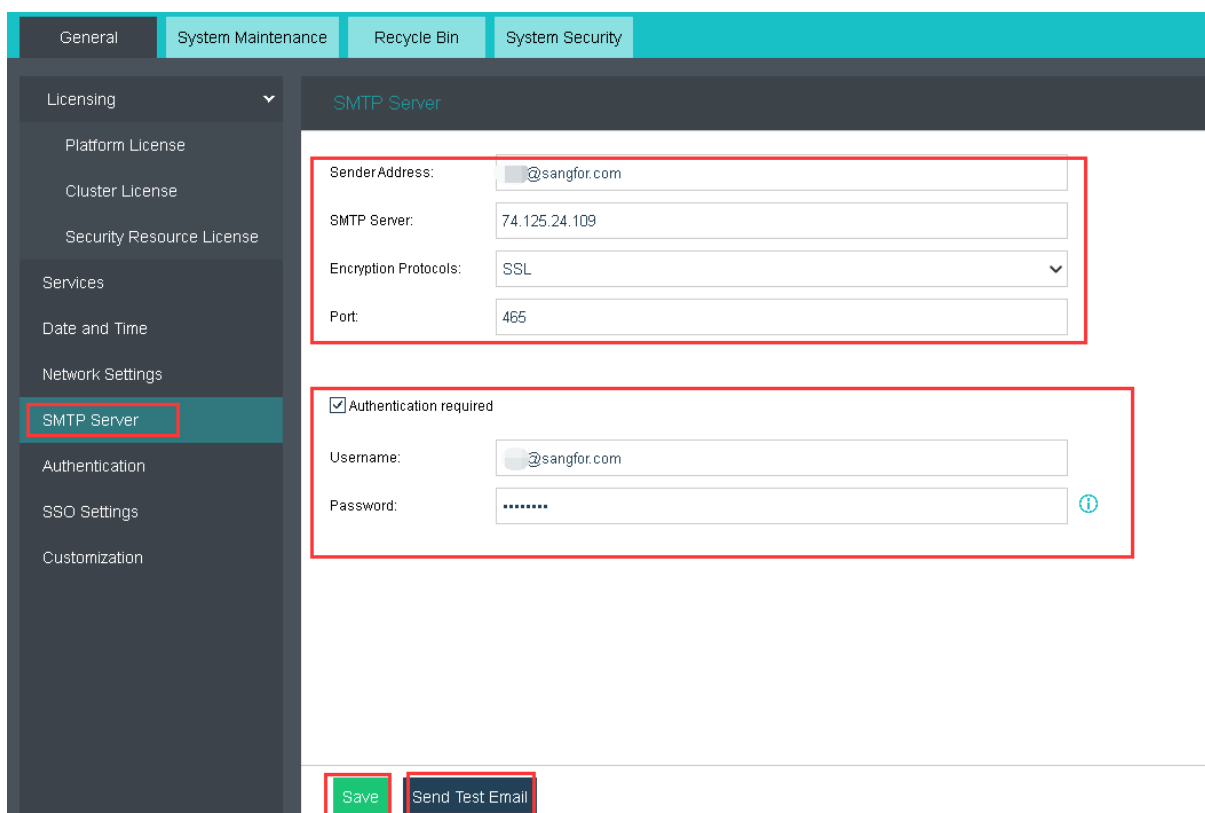
SANGFOR SCP is configured with Mailbox and you can send the alarm by Mailbox. The customer can master the running state of clusters at any time.

[Operating Steps]

1. Log in the home page of SCP platform and select **【System】 > 【SMTP Server】** ;



2. Fill in Mailbox address and smtp server address according to the actual situation; if the sending server requires authentication of the username and password, the corresponding username and password shall be entered and the testing shall be carried out.



3.1.1.5 Authentication

[Function Description]

LDAP is a lightweight directory access protocol, generally used as an authentication server. SCP supports importing users from the LDAP server into SCP and assigning corresponding roles.

[Precautions]

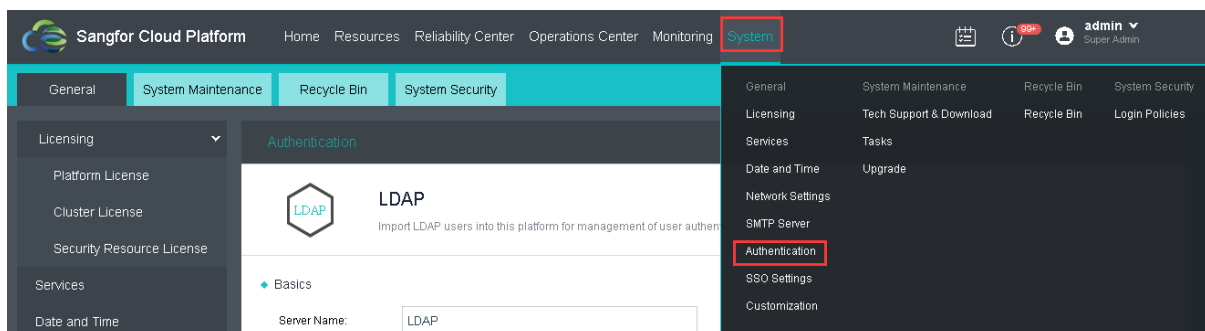
1. If the LDAP server is disconnected from the SCP and the LDAP server is down, users will not be able to log in on the SCP.
2. When changing user information on the LDAP side, it is not recommended to change the login name and email at the same time. If it is changed at the same time, a new user will be created in SCP when importing.
3. The imported user name cannot be admin or SCP.
4. For users who have no email or mobile phone number on the LDAP server, the user's mobile phone number and email information will be randomly generated on the SCP after being imported into the SCP.

[Prerequisites]

1. When the LDAP server operating system is windows, it must be the windows server2012 version.
2. When the LDAP server operating system is Linux, OpenLDAP must be supported.

[Operating Steps]

1. Log in to the SCP platform, select [System] – [Authentication], enter the LDAP user interface, and click the <LDAP Server Configuration> button to configure the LDAP server.



General

System Maintenance

Recycle Bin

System Security

Licensing

Platform License

Cluster License

Security Resource License

Services

Date and Time

Network Settings

SMTP Server

Authentication

SSO Settings

Customization

Authentication

LDAP

Import LDAP users into this platform for management of user authentication.

Basics

Server Name:LDAP

IP Address:192.168.19.115

Port:389

Distinguished Name (DN):administrator@yong.local

Admin Password:.....

Test Connectivity

Advanced

Server Type:MS Active Directory

Username:administrator

Name:administrator

- Configure the server name, IP address, port, administrator's full path, and administrator's password.

LDAP

Import LDAP users into this platform for management of user authentication.

Basics

Server Name:LDAP

IP Address:192.168.

Port:389

Distinguished Name (DN):

Admin Password:.....

Test Connectivity

-
3. After the configuration is complete, click <Test Connectivity>. If the test is normal, proceed to the next step.



LDAP

Import LDAP users into this platform for management of user authentication.

◆ Basics

Server Name:	<input type="text" value="LDAP"/>
IP Address:	<input type="text" value="192.168.19.115"/>
Port:	<input type="text" value="389"/>
Distinguished Name (DN):	<input type="text" value="administrator@yong.local"/>
Admin Password:	<input type="password" value="....."/>

[Test Connectivity](#)

Details
✕

Status:

✓ Completed

Action:

Test connectivity

Object:

LDAP

Object Type:

LDAP Server

Start Time:

2020-07-27 16:59:39

End Time:

2020-07-27 16:59:39

Tenant Name:

admin

Operator:

admin (192.200.19.86)

Resource Pool:

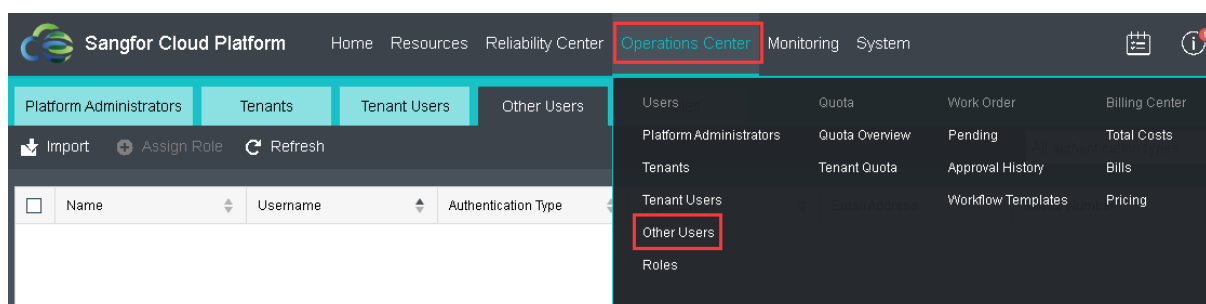
-

Description:

-

OK

- After clicking <Import> on the interface, select the user to be imported, and configure user conflict handling, and click <OK> after the configuration is complete.



- After the import is complete, add roles to the imported users, click <Add Role> on the interface, and configure the corresponding roles. The imported users can be configured as tenants or tenant sub-account roles.

3.1.1.6 SSO Settings

[Function Description]

Single sign-on (SingleSignIn, SSO) is a one-time authentication login of the user. After the user login once on the identity authentication server, he can gain access to other related systems and application software in the single sign-on system.

Sangfor SCP supports the docking of the customer's existing CAS system. When logging in to the SCP, the customer's existing account information is used to log in. After the role is assigned, single sign-on can be realized, which reduces the customer's operation and maintenance burden.

[Prerequisites]

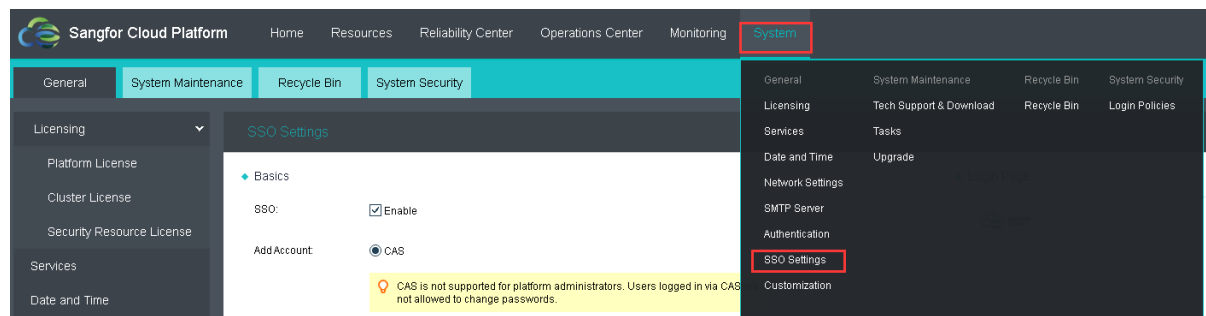
1. The customer's existing CAS authentication system is operating normally, and the communication between the CAS server and the SCP platform is normal.
2. The supported CAS versions are: CAS_V2, CAS_V3.
3. The platform administrator does not support the use of CAS for single sign-on, only supports tenants and tenant users to log in through CAS.

[Precautions]

After the user login with SSO, if it conflicts with an existing user on the cloud platform (the login user name is the same), the new user information will be imported and the existing information will be overwritten; otherwise, the user will be automatically registered and displayed in the [Other users] list which will be available after adding roles.

[Operating Steps]

1. Use "admin" to log in to SCP's platform and enter [System] > [SSO Settings].



2. Basic settings

- SSO: Check the [Enable].
- Entry & Text: can be self-defined, for example: CAS login entry.
- Version: consistent with the customer's existing CAS version.
- Login URL: <https://CASIP/cas/login?service=https://SCPIP/sso/cas/callback>.

For example, the client's CAS server address is 192.200.200.100, the SCP platform address is 192.200.244.124, and the network is reachable between CAS server and SCP.

In this case the login URL will be:

<https://192.200.200.100/cas/login?service=https://192.200.244.124/sso/cas/callback>

- Ticket verification URL:

<https://CASIP/cas/p3/serviceValidate?ticket={ticket}&service=https://SCPIP/sso/cas/callback>

As in the above example:

<https://192.200.200.100/cas/p3/serviceValidate?ticket={ticket}&service=https://192.200.244.124/sso/cas/callback>

3. Advanced Settings

- Username: Obtain from the client.
- Name: Obtained from the client.
- Email Address: Obtained from the client.
- Mobile Numnber: Obtained from client.
- Auto registration: To enable Auto Registration, you can change the uppercase letters in the user name of the CAS server to lowercase letters to create a platform administrator associated with it.

4. Click <Save > to save the configuration.

The screenshot shows the SSO Settings configuration page. The top navigation bar includes 'General', 'System Maintenance', 'Recycle Bin', and 'System Security'. The left sidebar lists various settings, with 'SSO Settings' highlighted. The main content area is titled 'SSO Settings' and contains two sections: 'Basics' and 'Advanced'.

Basics Section:

- SSO:** ☒ Enable
- Add Account:** ☒ CAS
- Warning:** CAS is not supported for platform administrators. Users logged in via CAS are not allowed to change passwords.
- Entry & Text:**
- Version:**
- Login URL:**
- Ticket Verification URL:**

Advanced Section:

- Username:**
- Name:**
- Email Address:**
- Mobile Number:**
- Auto Registration:** ☐ Enable
- Warning:** To import users manually, go to Operations Center > Other Users, click on Import > Import from Local File

A 'Save' button is located at the bottom of the page.

5. Open the self-service portal through <https://SCP IP> and log in.
6. At this time, it will prompt "The account has no access rights, please contact the administrator". Use "admin" to log in to the SCP platform, enter [Operation Center/Other Users], and add the role of "tenant" to the imported user casuser.
7. After that, log in through the "CAS Login Portal" of the self-service portal, enter the user name and password, and log in to the tenant interface.
8. When there are multiple users on the client CAS server, you can also manually import users in batches.

3.1.1.7 Customization

[Function Description]

Customization is supported on SANGFOR SCP. The customization include: platform name, platform profile, logo, links and other information.

It can meet the personalized customization requirement from different industries and different customers.

[Precautions]

1. Platform name format requirements:

- The length is 1~48 characters or 1~16 Chinese
- Support Chinese, English letters and numbers
- Support special characters ()[]{}() 【】 {}@|._-+ and spaces

2. Picture format requirements:

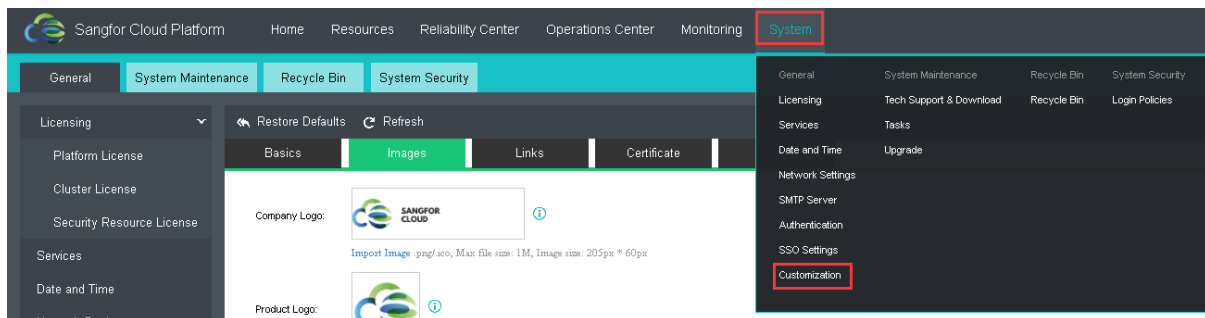
- Brand LOGO: Support .png/.ico, the maximum size is 1M, size: 205px * 60px
- Product LOGO: Support .png/.ico, the maximum size is 1M, size: 80px * 80px
- Website icon: Support .png/.ico, the maximum size is 1M, size: 32px * 32px
- Promotional illustration: Support .jpg, maximum size is 1M, size: 1920px * 1080px

[Prerequisites]

Prepare the images and other materials that need to be replaced.

[Operating Steps]

1. Use "admin" to log in to the SCP platform and enter "System"->"Customization" to customize basic information, logo, links, functions and other content.



2. Click <Save> to complete the setting.

The screenshot shows the 'System Maintenance' section of the Sangfor Cloud Platform configuration interface. The 'Basics' tab is selected, and the 'Full Name', 'Abbreviation', and 'Tech Support' fields are filled with 'Sangfor Cloud Platform', 'Sangfor Cloud Platform', and '+60 127-117-129(7511)' respectively. The 'Profile' field contains a detailed description of the platform. A red box highlights the 'Save' button at the bottom.

3. Click <Restore Defaults> to clear the customized content and restore the default display.

The screenshot shows the 'System Maintenance' section of the Sangfor Cloud Platform configuration interface. The 'Basics' tab is selected, and the 'Full Name', 'Abbreviation', and 'Tech Support' fields are filled with 'Sangfor Cloud Platform', 'Sangfor Cloud Platform', and '+60 127-117-129(7511)' respectively. The 'Profile' field contains a detailed description of the platform. A red box highlights the 'Restore Defaults' button at the top.

3.1.2 System Maintenance

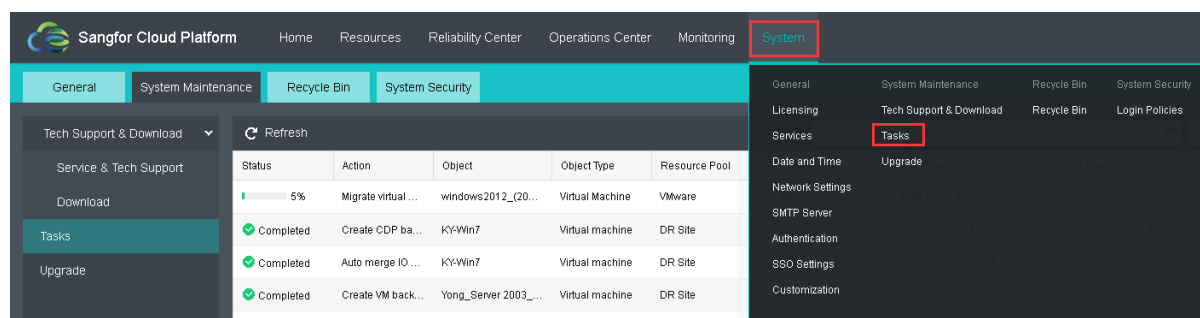
3.1.2.1 View of Tasks Logs

[Function Description]

SANGFOR SCP will record all the operation logs and synchronously the operation results. For example, the administrator can examine the historical operation records on this page to orientate the fault causes.

[Operating Steps]

1. Log in the home page of SCP platform and select **【System】 > 【Tasks】** ;



General	System Maintenance	Recycle Bin	System Security
Tech Support & Download	Refresh		
Service & Tech Support			
Download			
Tasks			
Upgrade			

Status	Action	Object	Object Type	Resource Pool	User	Start Time	End Time	Operator	Operation
5%	Migrate virtual ...	windows2012_20...	Virtual Machine	VMware	admin	2020-07-27 11:34:07	-	admin (192.200.19.86)	View
Completed	Create CDP ba...	KY-Win7	Virtual machine	DR Site	admin	2020-07-27 11:40:15	2020-07-27 11:41:40	System Background	View
Completed	Auto merge IO ...	KY-Win7	Virtual machine	DR Site	admin	2020-07-27 11:38:04	2020-07-27 11:38:17	System Background	View
Completed	Create VM back...	Yong_Server 2003...	Virtual machine	DR Site	admin	2020-07-27 11:37:45	2020-07-27 11:38:43	System Background	View
Completed	Disaster Recov...	Testing	Disaster recov...	VMware	admin	2020-07-27 11:37:44	2020-07-27 11:37:45	System Background	View
Failed	Disaster Recov...	Test DR	Disaster recov...	Test Pool	admin	2020-07-27 11:37:44	2020-07-27 11:37:44	System Background	View
Completed	Create VM back...	Yong_Server 2003...	Virtual machine	DR Site	admin	2020-07-27 11:27:39	2020-07-27 11:28:17	System Background	View
Completed	Disaster Recov...	Testing	Disaster recov...	VMware	admin	2020-07-27 11:27:37	2020-07-27 11:27:38	System Background	View
Failed	Disaster Recov...	Test DR	Disaster recov...	Test Pool	admin	2020-07-27 11:27:37	2020-07-27 11:27:37	System Background	View
Completed	Change resour...	yong	Tenant	-	admin	2020-07-27 11:23:53	2020-07-27 11:23:54	admin (192.200.19.4)	View
Completed	Auto run task in...	20200727000043	Work Order	-	admin	2020-07-27 11:23:53	2020-07-27 11:23:55	System Background	View
Completed	Fix work order	20200727000043	Work Order	-	admin	2020-07-27 11:23:53	2020-07-27 11:23:53	admin (192.200.19.4)	View
Completed	Create VM back...	Yong_Server 2003...	Virtual machine	DR Site	admin	2020-07-27 11:17:31	2020-07-27 11:18:11	System Background	View
Completed	Disaster Recov...	Testing	Disaster recov...	VMware	admin	2020-07-27 11:17:29	2020-07-27 11:17:30	System Background	View
Failed	Disaster Recov...	Test DR	Disaster recov...	Test Pool	admin	2020-07-27 11:17:29	2020-07-27 11:17:29	System Background	View
Completed	Delete cluster il...	Testing Cluster	Cluster	-	admin	2020-07-27 11:13:31	2020-07-27 11:13:31	admin (192.200.19.86)	View
Completed	Delete resourc...	Testing Pool	Resource Pool	-	admin	2020-07-27 11:13:29	2020-07-27 11:13:33	admin (192.200.19.86)	View
Completed	Create tenant n...	VPC	Network	DR Site	admin	2020-07-27 11:11:42	2020-07-27 11:12:13	admin (192.200.19.86)	View
Completed	Add resource p...	testing	Tenant	-	admin	2020-07-27 11:11:41	2020-07-27 11:12:13	admin (192.200.19.86)	View

3.1.3 Business Maintenance

3.1.3.1 Recycle Bin

[Function Description]

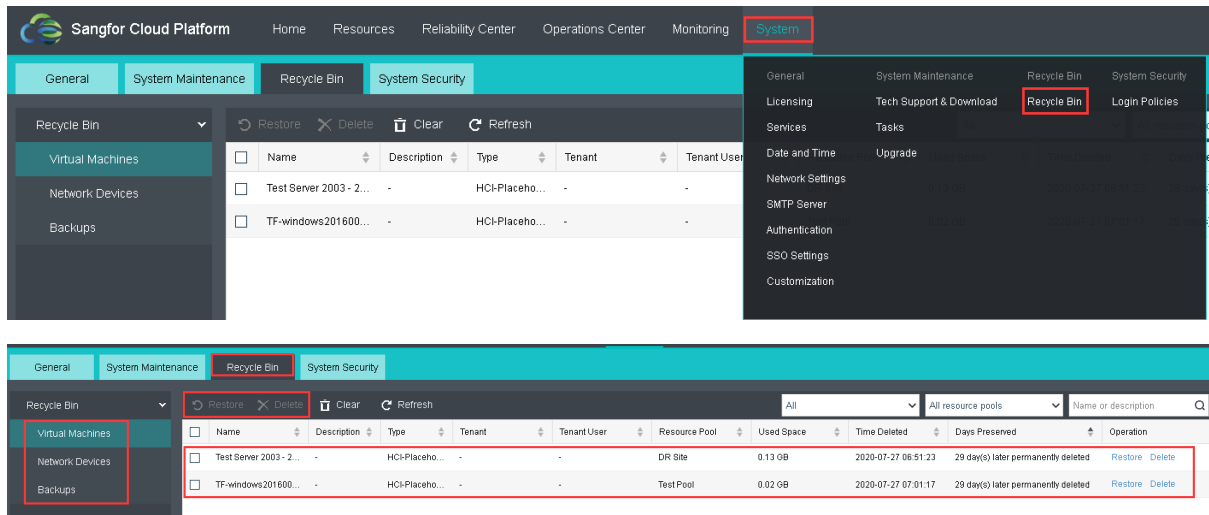
SANGFOR SCP strongly protects the data safety of the platform. When the administrator deletes the virtual machine and network devices of the platform, these devices will be moved into recycle bin to keep for a while. They are recoverable during this period but not recoverable once timeout or manually and completely deleted.

[Note]

Virtual machine cannot be recovered once deleted from recycle bin; please do the operation carefully.

[Operating Steps]

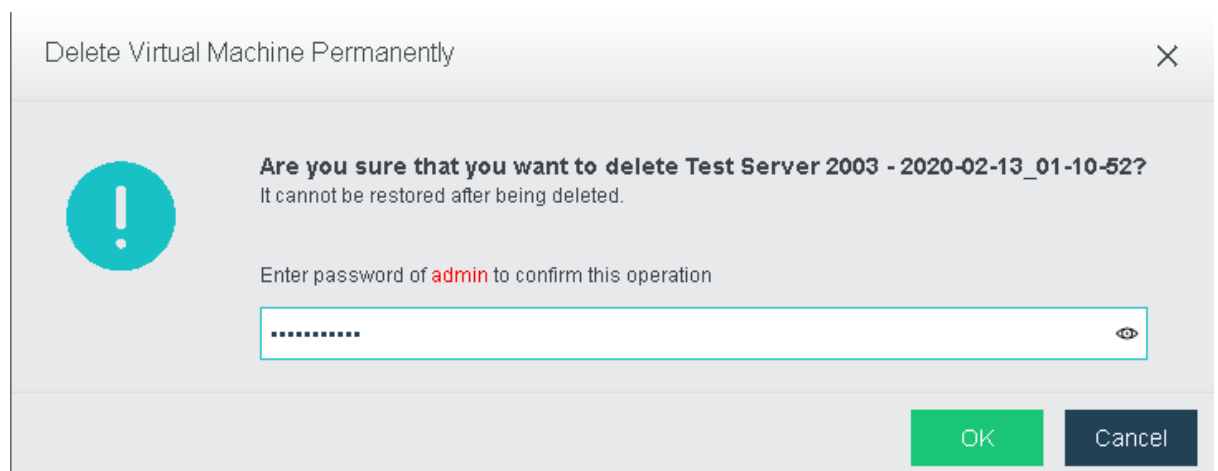
1. Log in the home page of SCP platform and select **【System】** > **【Recycle Bin】** to enter the recycle bin interface;



2. Tick the virtual machine or network device to be deleted and click **Restore** or **Delete** to restore or delete the virtual machine in the recycle bin.



Note: This deletion operation will completely delete the data of virtual machine or network device; please do the operation carefully.



3.1.4 Login Policies

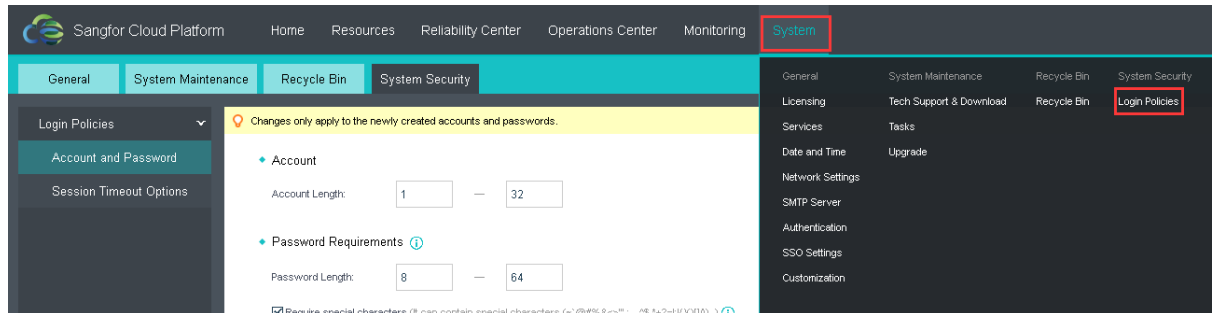
3.1.4.1 Account and Password

[Function Description]

Increased the security concerns for the SCP login account and password. Few configuration can be change to have better security level on the account and password.

[Operating Steps]

1. Select [System] > [Login Policies], you will be redirect to Account and Password tab.



2. Under Account and Password tab, you can configure the following options:

General

System Maintenance

Recycle Bin

System Security

Login Policies

Account and Password

Session Timeout Options

Changes only apply to the newly created accounts and passwords.

Account

Account Length: 1 — 32

Password Requirements

Password Length: 8 — 64

☒ Require special characters (It can contain special characters (~`@#%&<>";_~^\$.?+=!:|{}[]^)~)
 ☐ Do not allow specified common passwords (refer to those frequently used)

One entry per line

Test@123

0/20

☒ Limit consecutive characters (e.g., aaa, 111)

Max Consecutive Characters: 1

☒ Limit reusing recent passwords

Recent Passwords Disallowed: 4

Account Lockout Options

Max Password Retry Attempts: 30

Counting Interval: 5

minute(s)

Lockout Duration: 5

minute(s)

Password Validity

☐ Require users to change password

Validity Period: 6

month(s)

Give Alert before Expiration (day): 7

Session Logout upon Password Reset

If a user has logged into this platform, sessions created before resetting password will be terminated.

- Apply the changes after the configuration has been done. Restore to default configuration by clicking the Restore Defaults.

Apply Changes

Restore Defaults

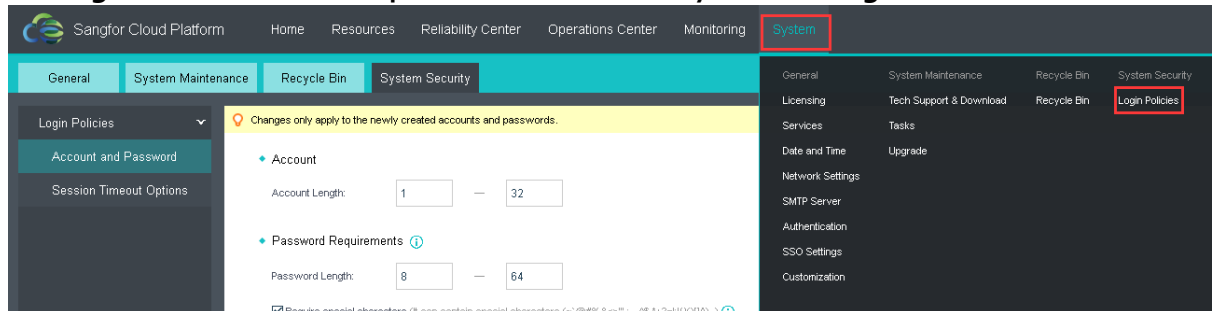
3.1.4.2 Session Timeout Options

[Function Description]

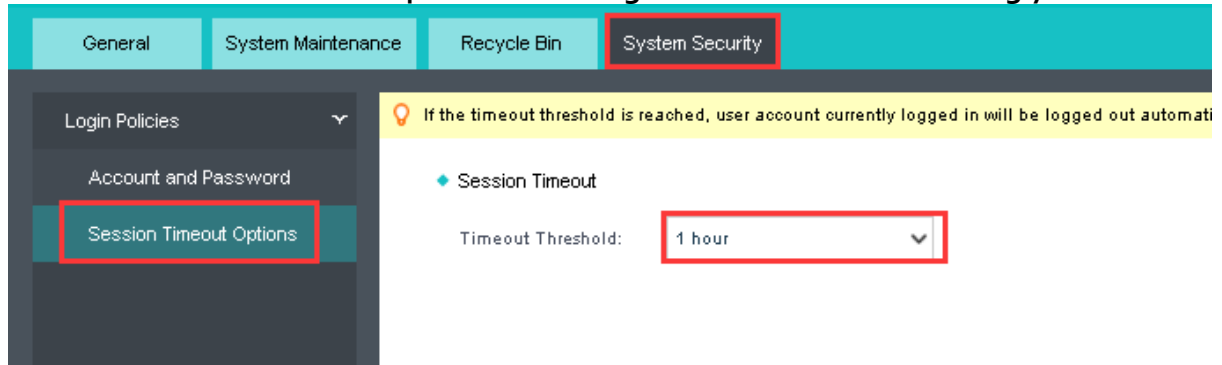
SANGFOR SCP allow to logout user which hit the threshold preventing information exposure for the idle user.

[Operating Steps]

1. Login to SANGFOR SCP platform and select [System] > [Login Policies].



2. Select Session Timeout Options and configure the threshold accordingly.



3. Click the Apply Changes to save the changes or Restore Defaults to restore threshold to default value.



3.2 Resource Management

3.2.1 Image Management

3.2.1.1 Public Image Management

[Function Description]

The administrator can upload the images to all Resource Pools or Tenants for use. Image is divided into public image and private image and the relevant explanation is given as follows:

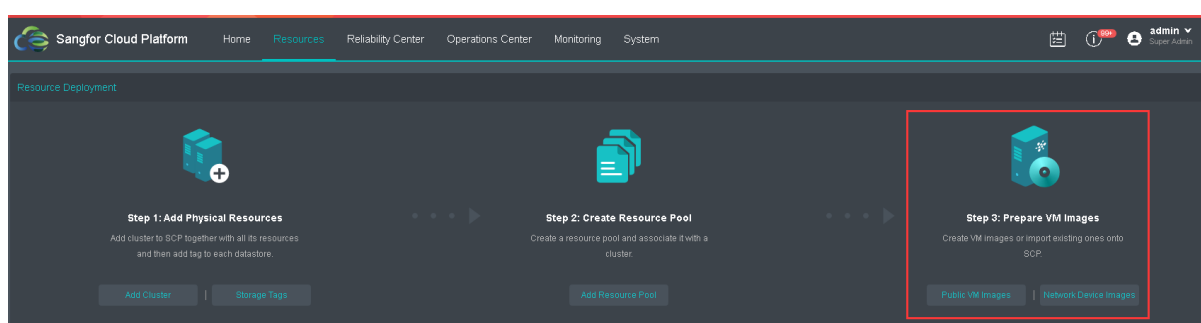
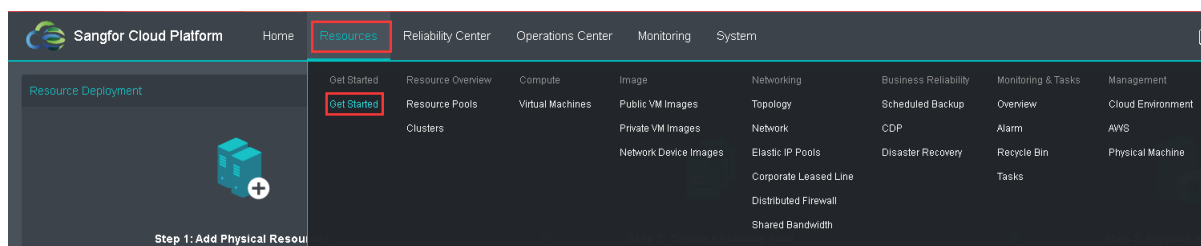
- Public Image: it is created by platform administrator and can be used by both platform administrator and tenants.
- Private Images: created by tenant administrator and used only among tenants
- Network Device Images: template images of NFV, uploaded by platform administrator

[Prerequisites]

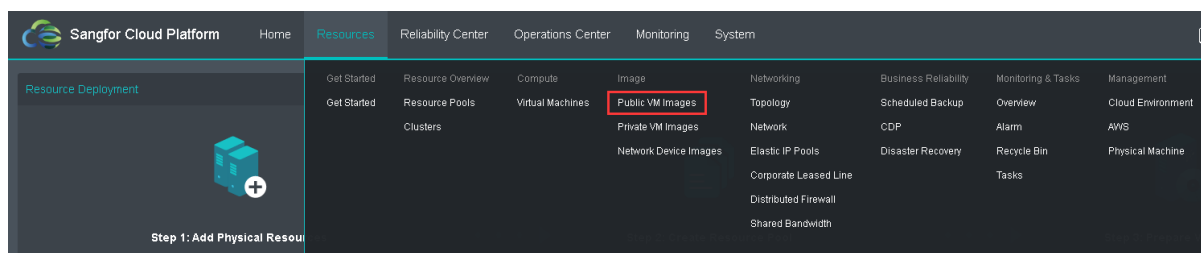
SANGFOR SCP has sufficient image storage space

[Operating Steps]

1. Log in the home page of SCP platform, select **【Resources】** > **【Get Started】**, click **Public Images** to enter the Public Images Management Interface as shown in the following figure:



- Or select **【Resources】** > **【Public VM Images】** to enter the VM Images Management Interface;



2. On the current page, you can see all existing images on SCP, including public images, private images and network device images. The Public Images page is selected by default. Click the **Upload Image**;

Public VM Images

Private VM Images

Network Device Images

Upload

Edit

Delete

Refresh

Filter

Name

<input type="checkbox"/>	Status	Name	Description	Disk Capacity	Image Size	Guest OS	Type	Resource Pools	Operation
<input type="checkbox"/>	Error	17763.737.190906-2324.rs5_release_svc_refresh_B...	-	-	2.86 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	CentOS-7-Jo_acmp_7852_Test Cluster_6213849a	-	-	7.71 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	CentOS-7-x86_64-Ever_acmp_3504_Test Cluster_b2...	-	-	7.71 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	CentOS-Everything_acmp_377c_Test Cluster_d9d91...	-	-	7.71 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	CentOS-St_acmp_b48c_Test Cluster_2995e225	-	-	7.71 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	EDR3.2.15EN20191225_B_DR Site_9755b704	-	-	2.13 GB	CentOS	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	EDR3.2.15EN20191225_B_DR Site_9755b704_Test...	-	-	2.13 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	Fedora-9-x86_64-DVD_DR Site_e2c184e7	-	-	3.61 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	Fedora-9-x86_64-DVD_DR Site_e2c184e7_Test Clust...	-	-	3.61 GB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Normal	FreeNAS-11.2-U8	-	-	574.38 MB	64 bit OS	ISO	DR Site	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	FreeNAS-11.2-U8_acmp_d120_Test Cluster_36ee1bf0	-	-	574.38 MB	-	ISO	-	Create Virtual Machine Edit Delete
<input type="checkbox"/>	Error	SIP-3.0.45-202003230933_Test Cluster_d4e08f13	-	-	6.53 GB	-	ISO	-	Create Virtual Machine Edit Delete

3. Select local images to be uploaded; fill in the corresponding information; select the corresponding operating system and Resource Pool, and click Upload;




Upload Image to SCP



Image:	ubuntu-18.04.3-live-server-amd64.iso 
Name:	ubuntu-18.04.3-live-server-amd64
Description:	Optional
Resource Pool:	1 selected 
OS:	Ubuntu 

[Upload](#)

Upload Image to SCP

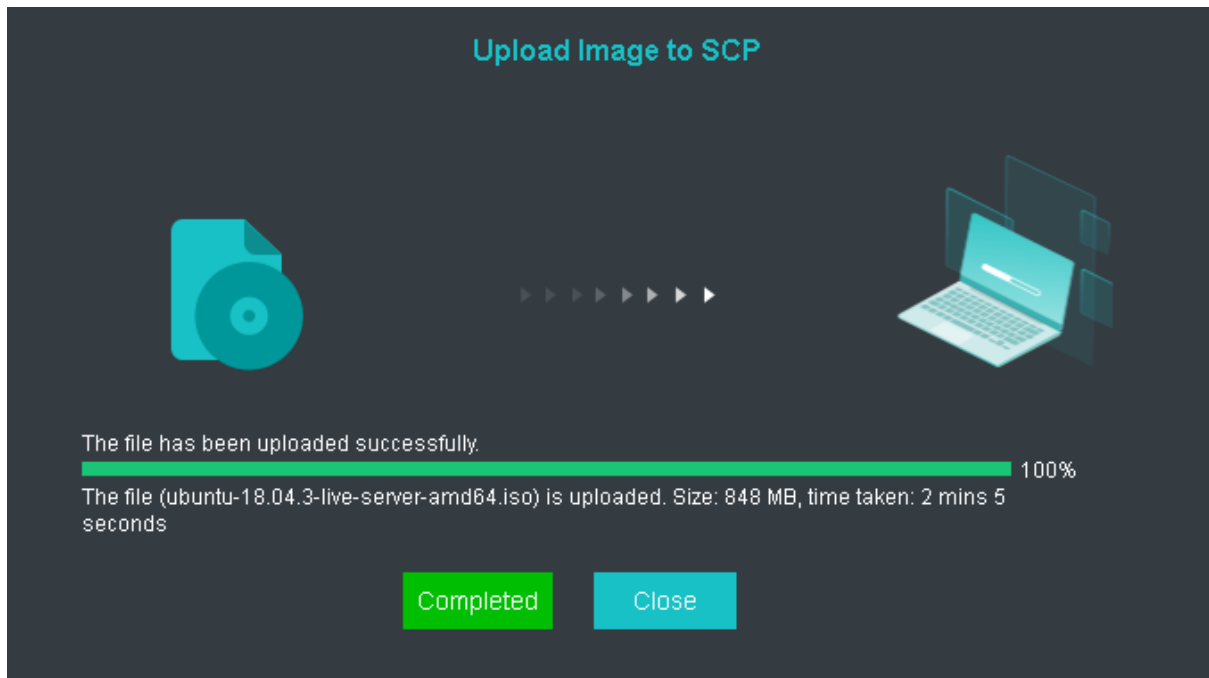


Uploading file ubuntu-18.04.3-live-server-amd64.iso. Please do not close this page.

Speed: 7.53 MB/s, Uploaded: 7.2 MB, File Size: 848 MB, Time Taken: 0 second, Time Remaining: 1 minute 51 seconds

[Cancel](#)

4. Upon the completion of uploading, click **Completed** to continue to upload or click **Close**.



3.2.1.2 Management of Private Images

[Function description]

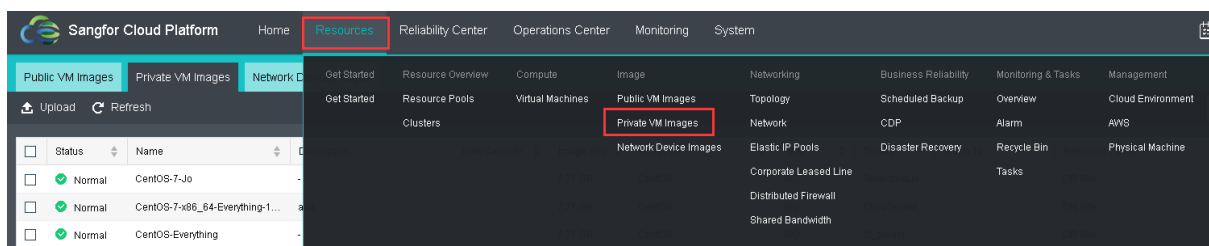
If the platform administrator does not assign the required image to the Tenant administrator, the latter can also upload private images according to his own needs. Private images can only be used within the Tenant.

[Prerequisites]

Prepare the ISO file to be uploaded

[Operating Steps]

1. Log in to the home page of SCP Tenant administrator (<https://IP:4430>); select **【Resources】** > **【Private VM Images】** ; click Upload Image



The following configuration page will be displayed after login:

Public VM Images

Private VM Images

Network Device Images

Upload

Refresh


Filter

Name

<input type="checkbox"/>	Status	Name	Description	Disk Capacity	Image Size	Guest OS	Type	Tenant	Share To	Resource Pools	Operation
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	CentOS-7-Jo	-	-	7.71 GB	CentOS	ISO	TenantTestJo	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	CentOS-7-x86_64-Everything-1...	aaa	-	7.71 GB	CentOS	ISO	ChuaTenant	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	CentOS-Everything	-	-	7.71 GB	CentOS	ISO	St_tenant	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	CentOS-St	-	-	7.71 GB	CentOS	ISO	St_tenant	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	WinPE	-	-	64 KB	64 bit OS	ISO	Test	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	alacsd	-	-	7.71 GB	CentOS	ISO	JMTenant	-	DR Site	Edit More
<input type="checkbox"/>	<div><div></div><div>Normal</div></div>	ubuntu-16.04.2-desktop-amd64	-	-	1.45 GB	Ubuntu	ISO	Test	-	DR Site	Edit More

2. Select the images to be uploaded, configure accordingly; click Upload
 - a. Upload To: Select whether this image will be upload to the SCP or specific tenant.
 - b. Tenant: Select the tenant wish to upload the image to.
 - c. For the other attributes, it will be the same with the public vm images.

Upload Image to SCP




Upload to:

☒ Cloud Platform
 ☐ Tenant ?

Tenant:

testing (testing) ▼

Image:

centos-live2.iso 📁

Name:

centos-live2

Description:

Optional

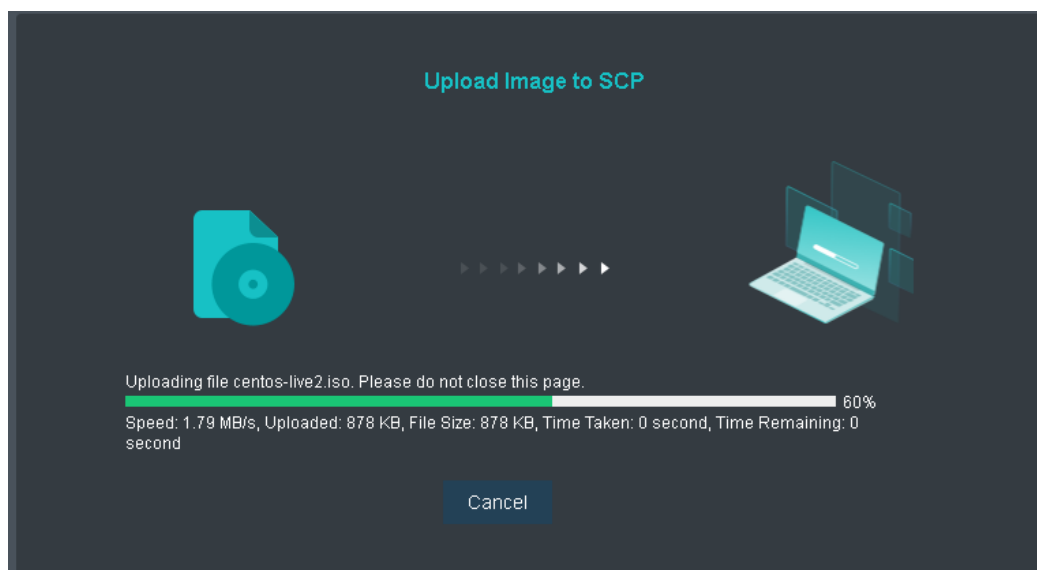
Resource Pool:

1 selected ...

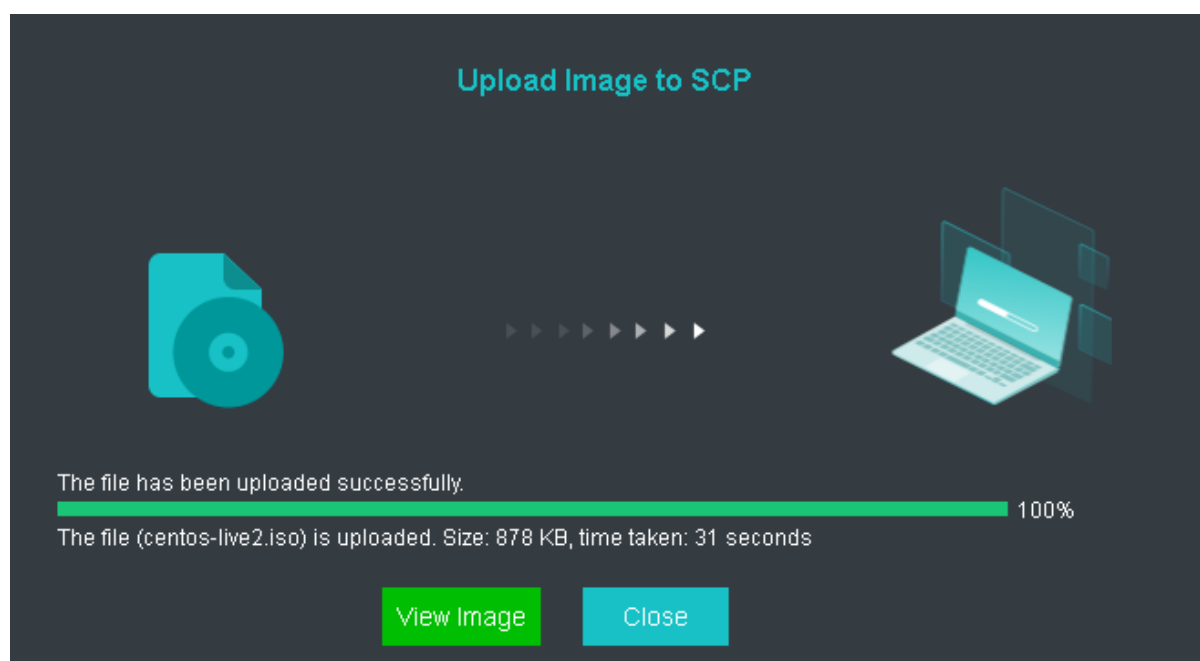
OS:

CentOS ▼

Upload



3. Upon the completion of uploading, click **Completed** to continue to upload or click **Close**. See the following figure:



3.2.1.3 Management of Network Device Images

[Function Description]

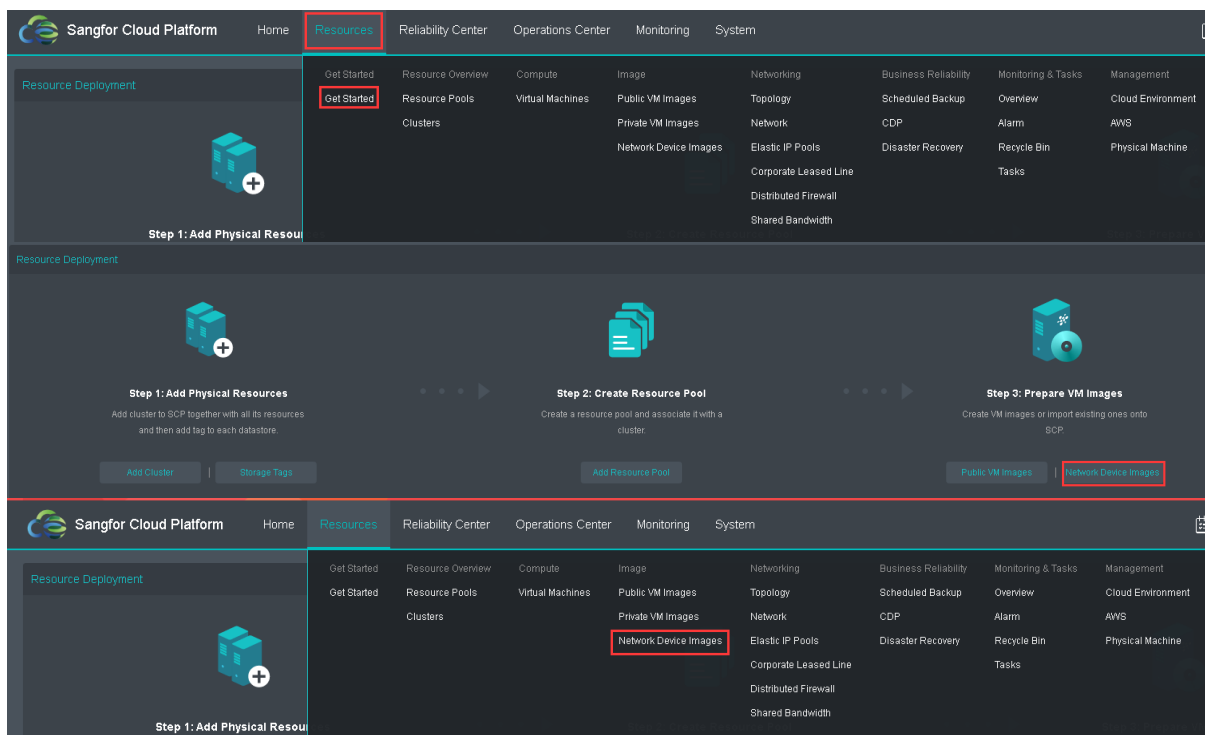
If the networking requirements of virtual network include network security components, such as vAD and vAC (please download security components from the official website of SANGFOR), you need to upload the corresponding network device images via which the corresponding security component instance can be created. The platform administrator can manage virtual network images through the management function of network device images.

[Prerequisites]

1. SANGFOR SCP has sufficient images storage
2. Prepare network device images and authorization

[Operating Steps]

1. Log in to the home page of SCP platform, select **【Resources】** > **【Get Started】** , click **Upload Network Device Template**; or directly select **【Resources】** > **【Network Device Images】** to enter network device images management page;

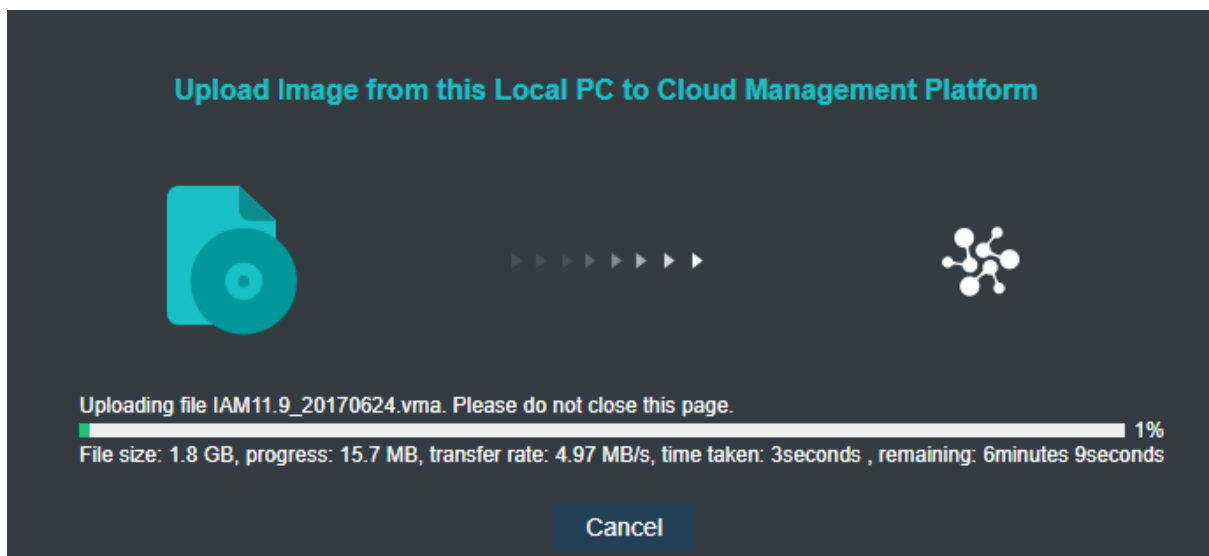
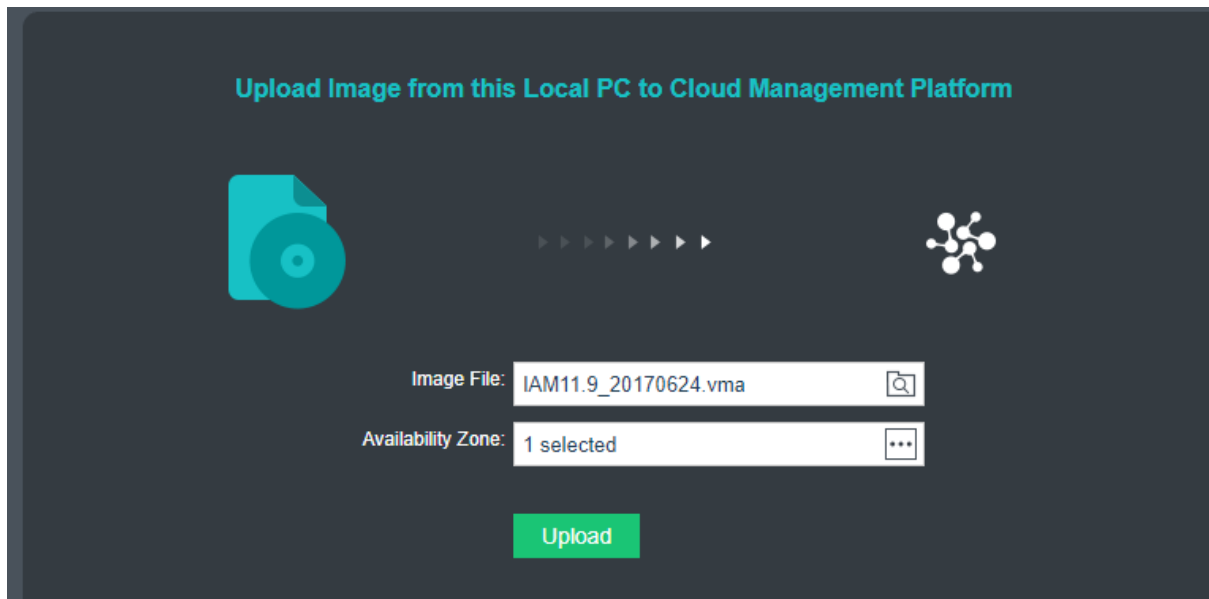


2. On the current page, you can see all existing images on SCP, including public images, private images and network device images. Select **【Network Device Images】** tab and Click **Upload Image**.

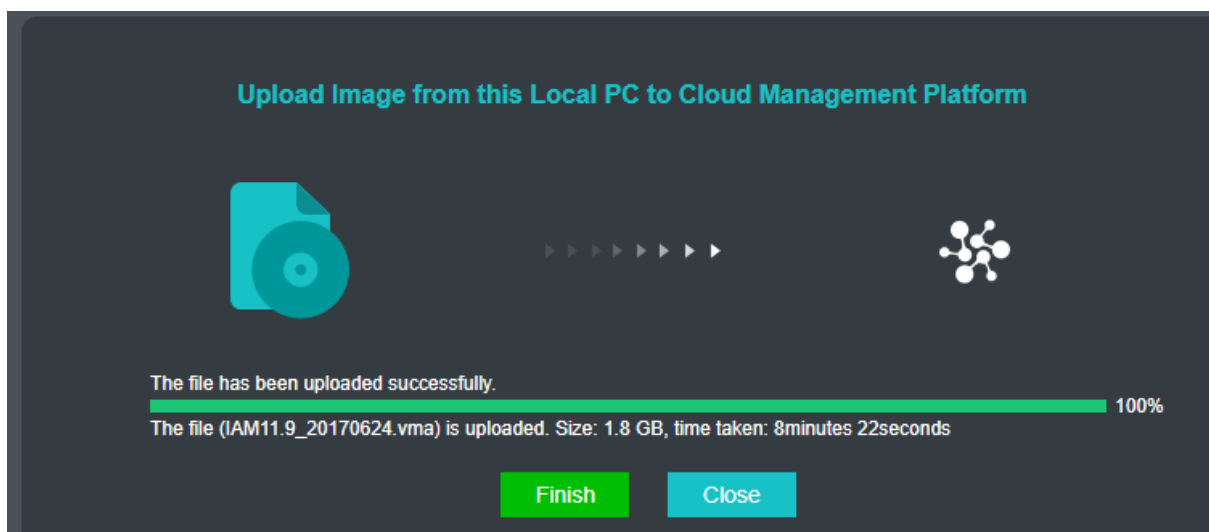
The screenshot shows the 'Network Device Images' management page. The 'Upload Image' button is highlighted. The table below lists existing images.

	Name	Status	Version	Resource Pools	Version Released	Operation
<input type="checkbox"/>	SSL		-			
<input type="checkbox"/>	SSLM7.6.1_20180129	Normal	M7.6.1	DR Site	2018-01-29 18:52:45	Edit Delete
<input type="checkbox"/>	SSLM7.6.0_20171228	Normal	M7.6.0	DR Site	2017-12-28 16:54:51	Edit Delete
<input type="checkbox"/>	SSL		-			

3. Select the local images to be uploaded; select the Resource Pool; and click Upload.



4. Upon the completion of uploading, click **Completed** to continue to upload or click **Close**.



3.2.2 Virtual machine

Virtual machine is the basic unit of SANGFOR SCP for providing services; and the administrator can create, export, delete and perform various operations on the virtual machine at his own discretion. Users can manage the virtual machine by creating a virtual machine or making a template.

3.2.2.1 Creation of full virtual machine

[Function description]

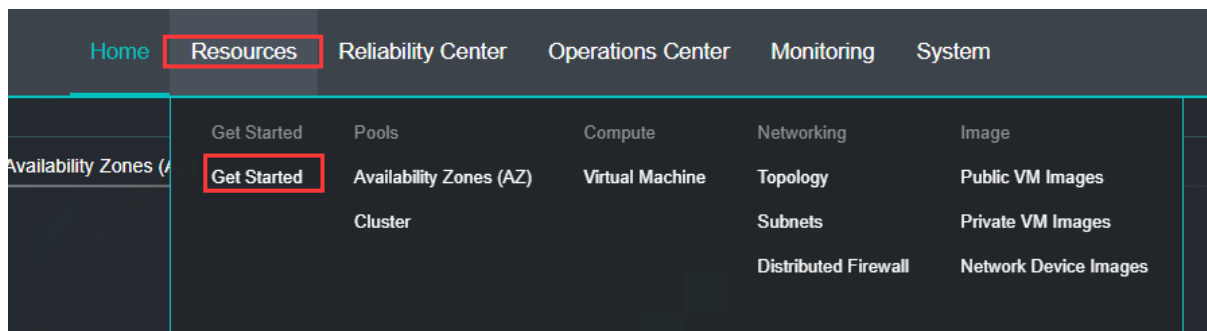
This function is used for creating new virtual machine resources

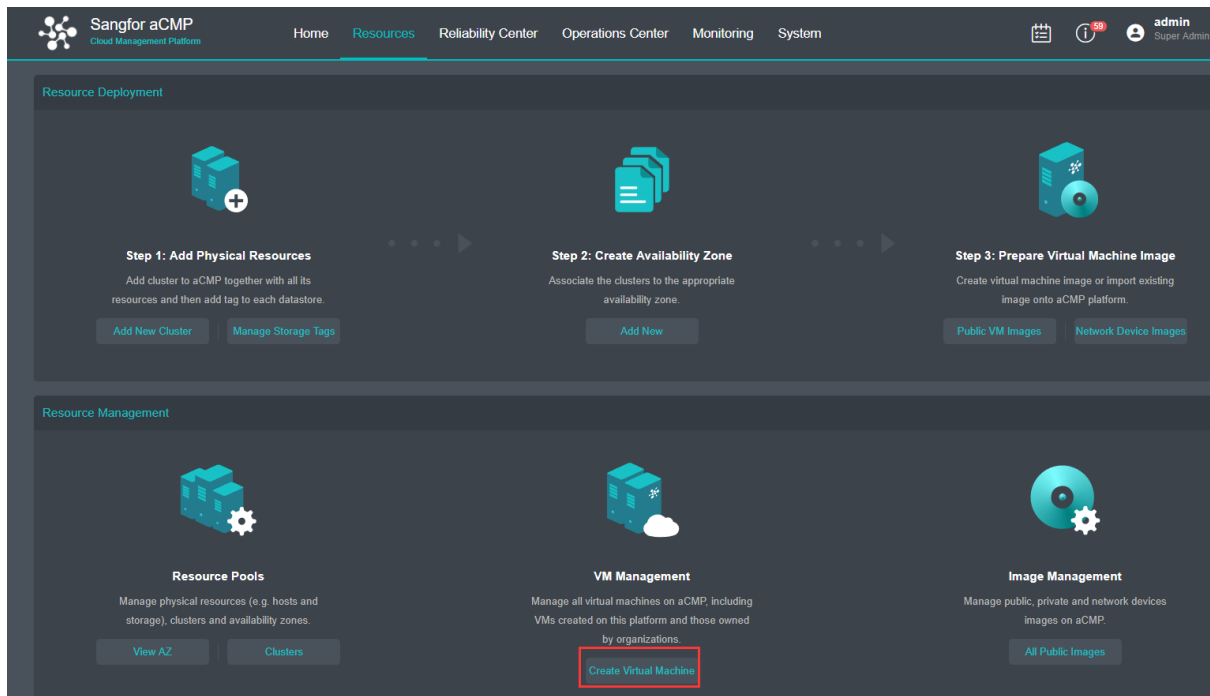
[Prerequisites]

The ISO file required for creating a virtual machine has been uploaded

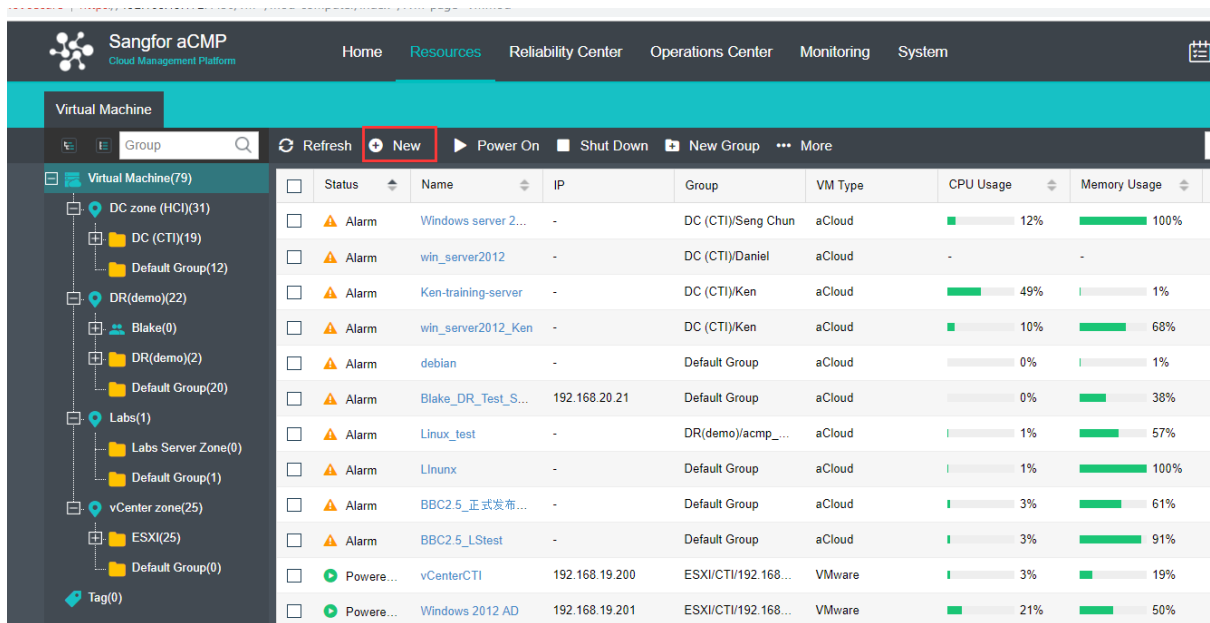
[Operating steps]

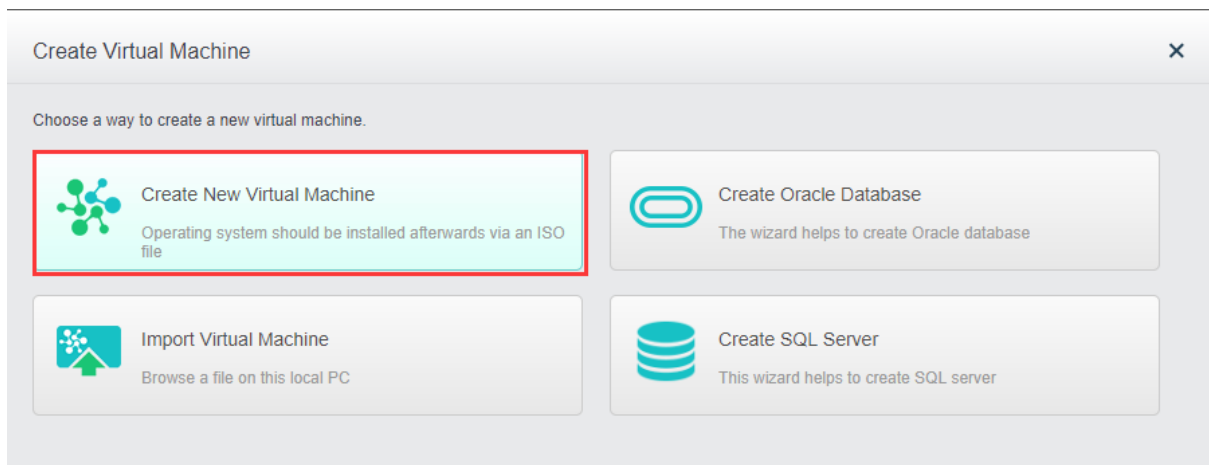
1. Log in to the hope page of SCP platform, select **【Resources】** > **【Get Started】**, click **Create Virtual Machine**; or click **【Resources】** > **【Virtual Machine】**; see the following figure:



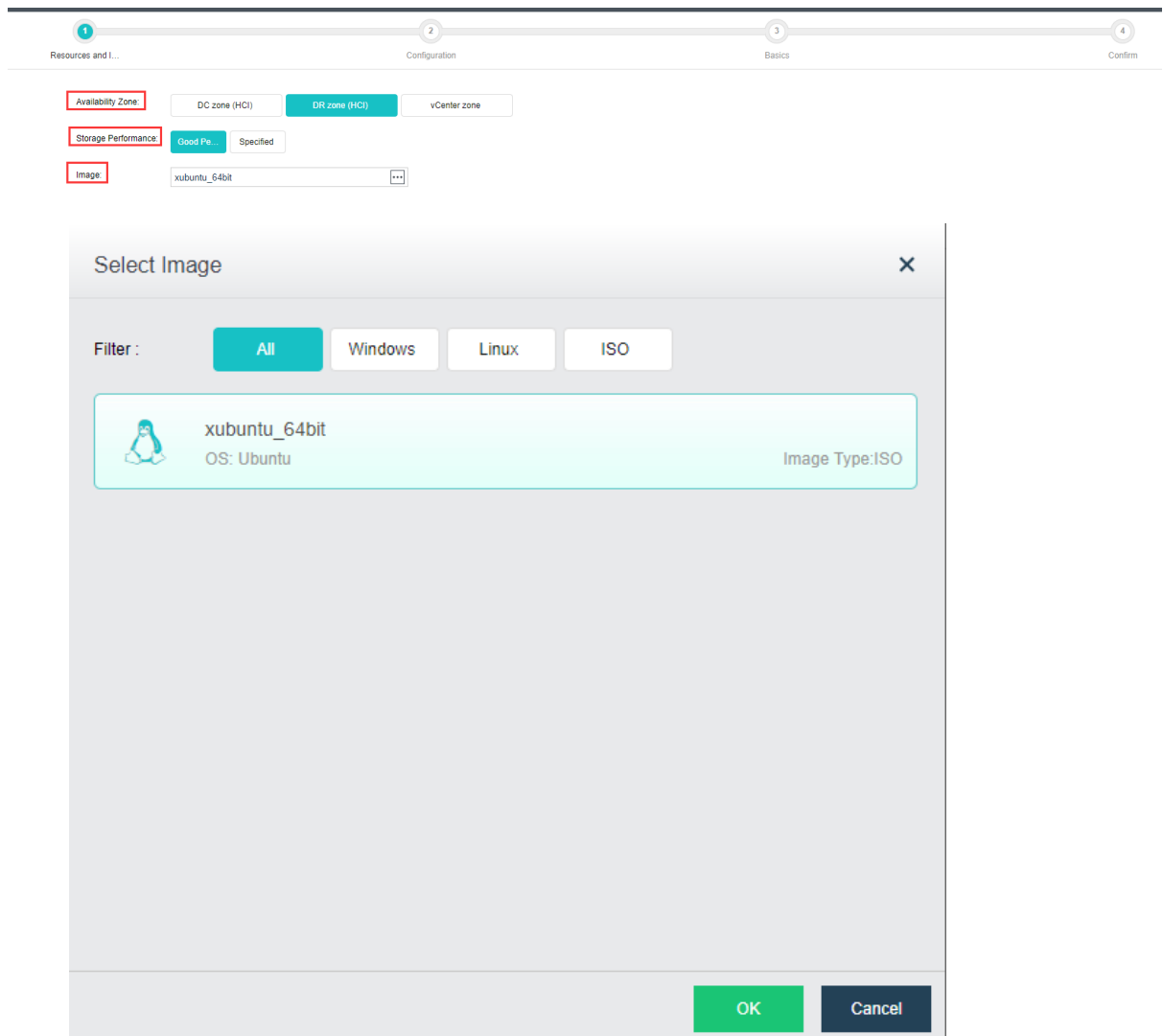


- Click **New**, select **Create New Virtual Machine** in the **【Create Virtual Machine】**.





3. Configure virtual machine images and Resource Pool, configure memory property, select the corresponding images, click **Next**;



4. Configure the parameters and network of virtual machine according to the actual demand and click **Next**;

Resources > Virtual Machine > Create Virtual Machine

Progress: 1 Resources and I... 2 Configuration 3 Basics 4 Confirm

VMS: 1

CPU: 1 CPU Core(s) 2 CPU Core(s) 4 CPU Core(s) 6 CPU Core(s) 8 CPU Core(s) 12 CPU Core(s) 16 CPU Core(s) core(s)

Custom Options

Memory: 1 GB 2 GB 4 GB 6 GB 8 GB 12 GB 16 GB 32 GB 48 GB 64 GB GB

Custom Options

Datstore: Disk 1

New disk Existing disk Physical Disk Shared Disks

Disk Capacity: 80 GB

Pre-allocation

Add Disk (2 more disks can be added)

USB Device: Add USB Device (12 more USB devices can be added)

Network: eth0

Enabled

Realtek RTL8139

fa:fc:fe:b9:40:0b

DefaultEdge

Back Next Cancel

Configure advanced options;

Advanced

Boot Order: 1 Disk 1 2 CD/DVD 3 None

Others:

Power on at node startup

High priority

Reboot if fault occurs (due to stuck, blue screen, etc., requiring vmTools be installed)

Enable CPU hot add (change could be made in power-off state) Guest OSes Support

Enable memory hot add (change could be made in power-off state) Guest OSes Support

Enable UUID generator (every time UUID generator is enabled, a new UUID will be generated)

Remote Debugging: Enable memory reclaiming (detect and reclaim free memory of idle virtual machine)

Back Next Cancel

5. Fill in the basic information of virtual machine, click **Next**;

Resources > Virtual Machine > Create Virtual Machine

Progress: 1 Resources and I... 2 Configuration 3 Basics 4 Confirm

Name: Linux_test

Description: Description

Group: DR zone (HCI)/Default Group

6. Click **OK** to finally confirm the information.

Resources > Virtual Machine > Create Virtual Machine

Resources and I... Configuration Basics Confirm

Name: Linux_test OS: Ubuntu Network: eth0 DefaultEdge

VMs: 1 CPU: 2 CPU Core(s)

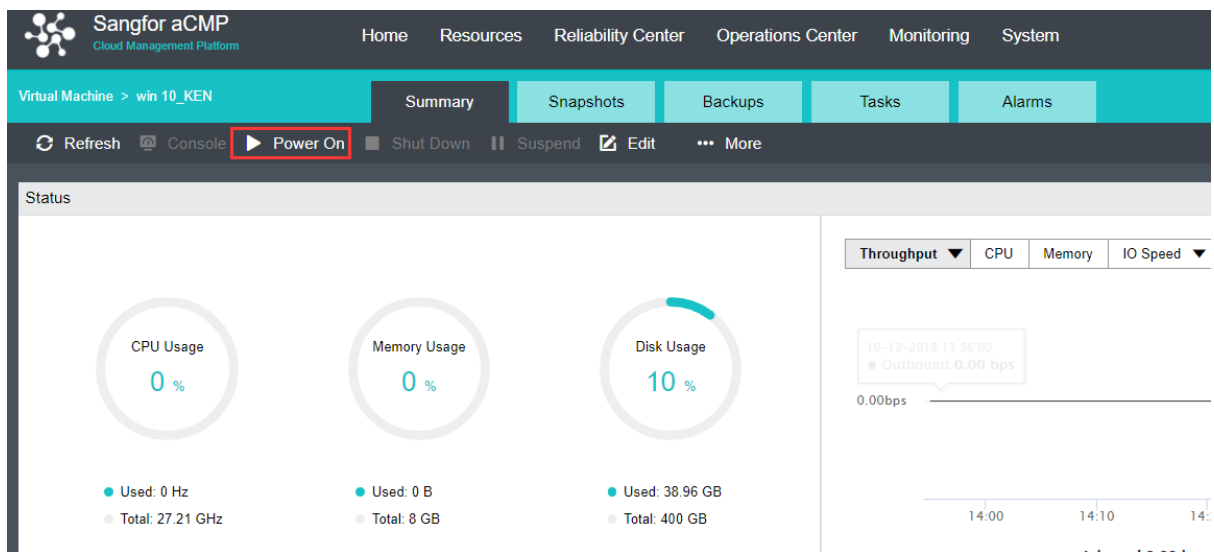
Group: DR zone (HCI)/Default Group Memory: 4 GB

Availability Zone: DR zone (HCI) Datastore: Disk 1 80 GB

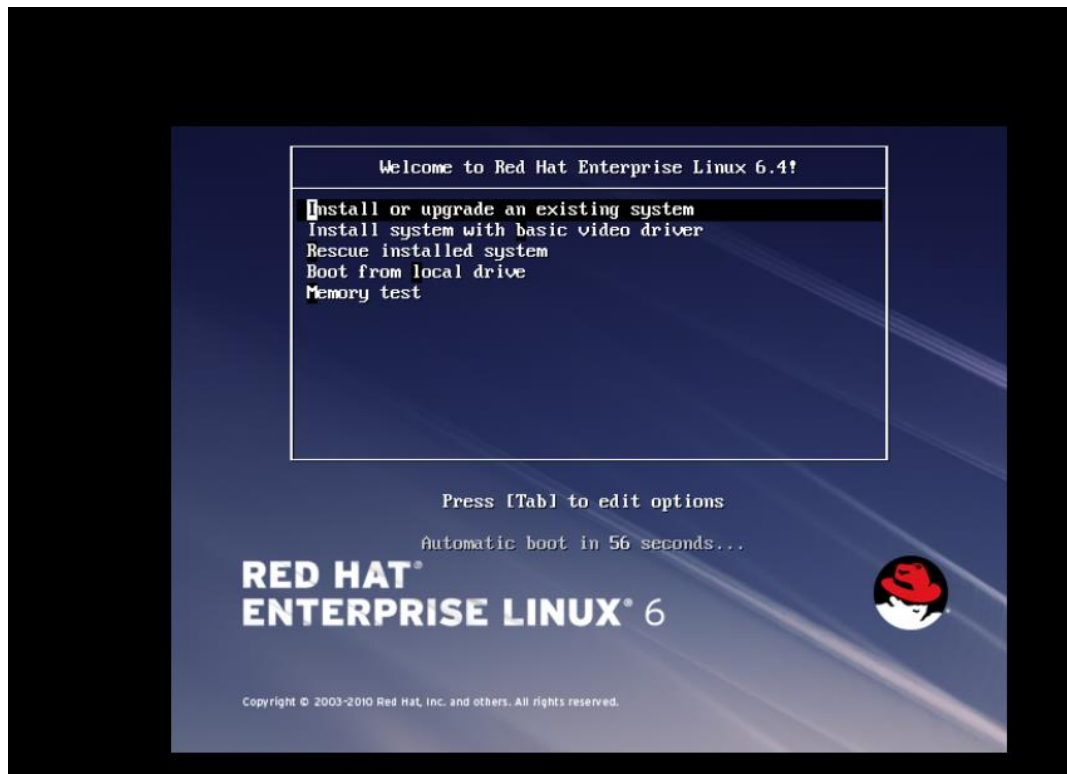
Storage Performance: Good Performance

Back OK Cancel

7. It should be noted that the virtual machine created by ISO needs to manually perform the installation steps of the operating system after powering on and entering the console for the first time.



Click Console to enter the operating system installation interface after powering on:



3.2.2.2 Export of Virtual Machine

[Function Description]

This function is applicable to the virtual machine.

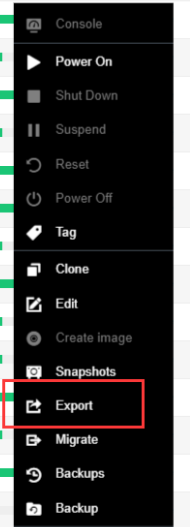
[Operating Steps]

1. Log in to the home page of SCP platform, click **【Resources】** > **【Virtual Machine】** option; select the virtual machine to be exported; click **More** on the right; click **Export** option;



Note: the virtual machine in operation can be exported.

<input type="checkbox"/>	Power...	146_user	-	Default Group	aCloud	0%	36%	51%	more
<input type="checkbox"/>	Power...	146_user	146.0.0.10	Default Group	aCloud	0%	47%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	8%	100%		
<input type="checkbox"/>	Power...	149_user	149.0.0.10	Default Group	aCloud	0%	47%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	8%	100%		
<input type="checkbox"/>	Power...	144_user	144.0.0.10	Default Group	aCloud	0%	47%		
<input type="checkbox"/>	Power...	147_user	147.0.0.10	Default Group	aCloud	0%	34%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	16%	96%		
<input type="checkbox"/>	Power...	145_user	145.0.0.10	Default Group	aCloud	0%	47%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	8%	100%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	8%	100%		
<input type="checkbox"/>	Power...	142_user	142.0.0.10	Default Group	aCloud	0%	45%		
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	15%	100%		
<input type="checkbox"/>	Power...	Lab-server template	192.200.19.20, 19...	Default Group	aCloud	0%	31%		
<input type="checkbox"/>	Power...	win2012	192.168.1.222	Default Group	aCloud	0%	16%		



2. Select the desired export format; OVA and VMA formats are available; click Start Export;

Export Virtual Machine (144_user)

Export consumes storage read/write resources. Exported file can be imported into Sangfor aCMP again.

File Format:

VMA

VMA

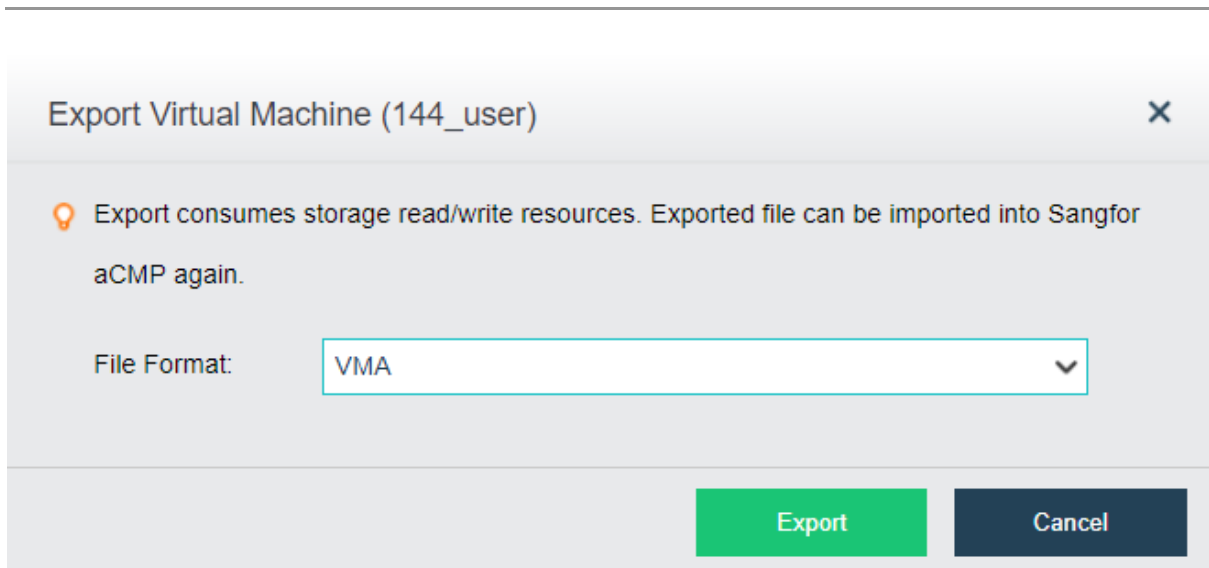
OVA

Export

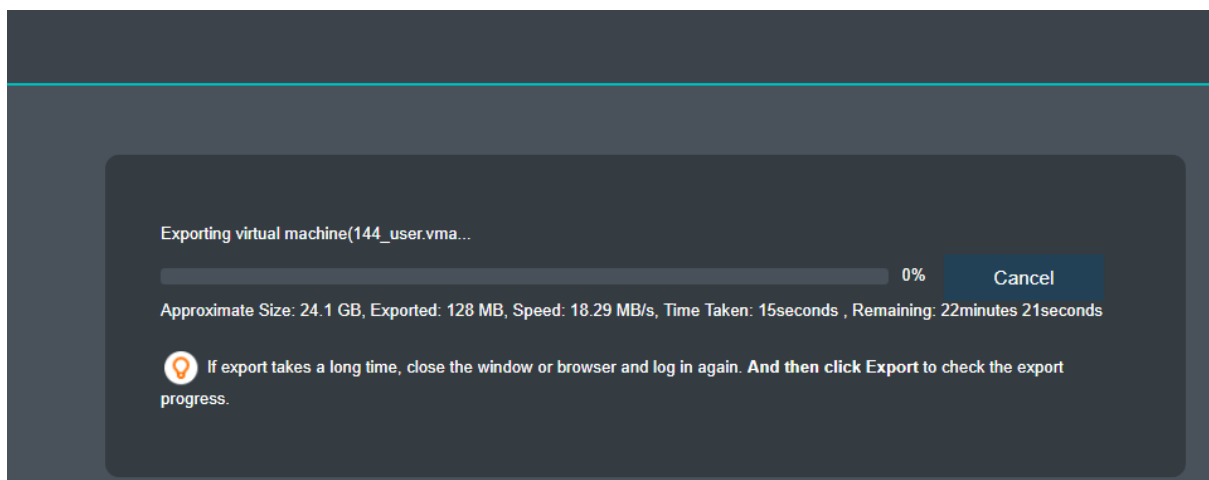
Cancel



: VMA, OVA formats; the corresponding export selections are different. To export VMA format, directly click Start Export. To export OVA format, however, you need to select the version number in the Virtual Machine Version. The version of the virtual machine is the version number of VMware Station.



3. Wait for the virtual machine to produce an export file and download the export file;



3.2.2.3 Import of virtual machine

[Function Description]

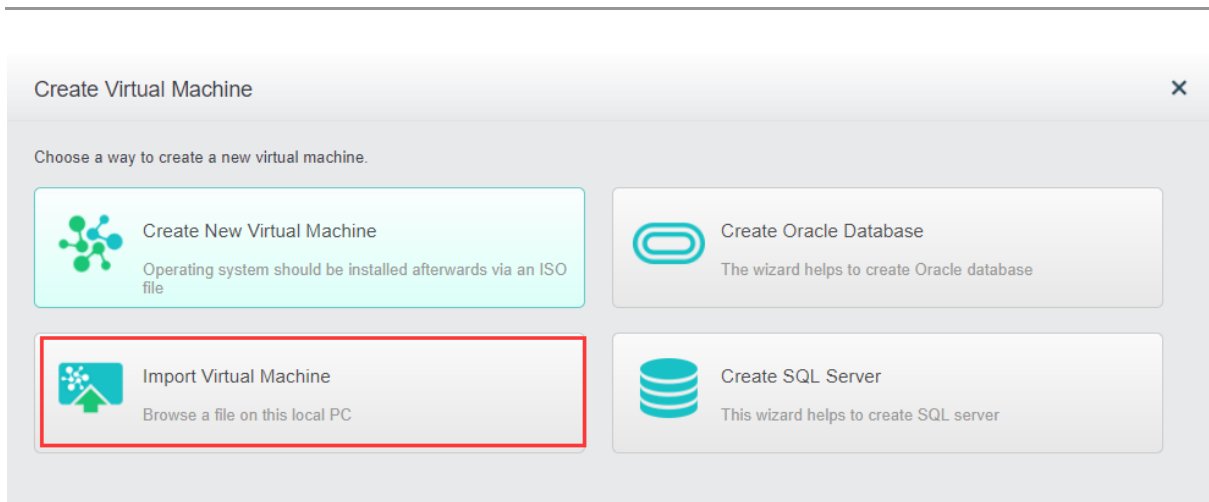
This function is applicable to import the virtual machine to HCI cluster via SCP.

[Prerequisites]

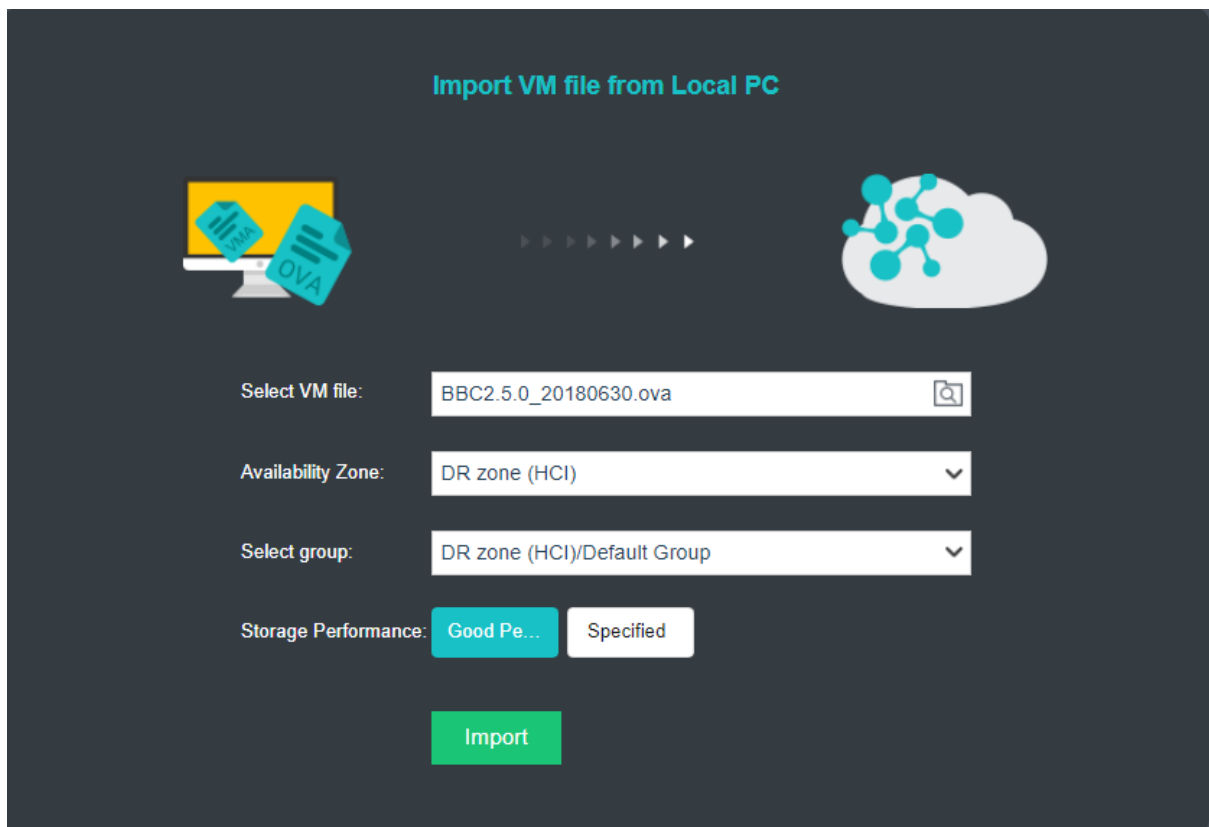
Prepare the VMA file or OVA file corresponding to the virtual machine.

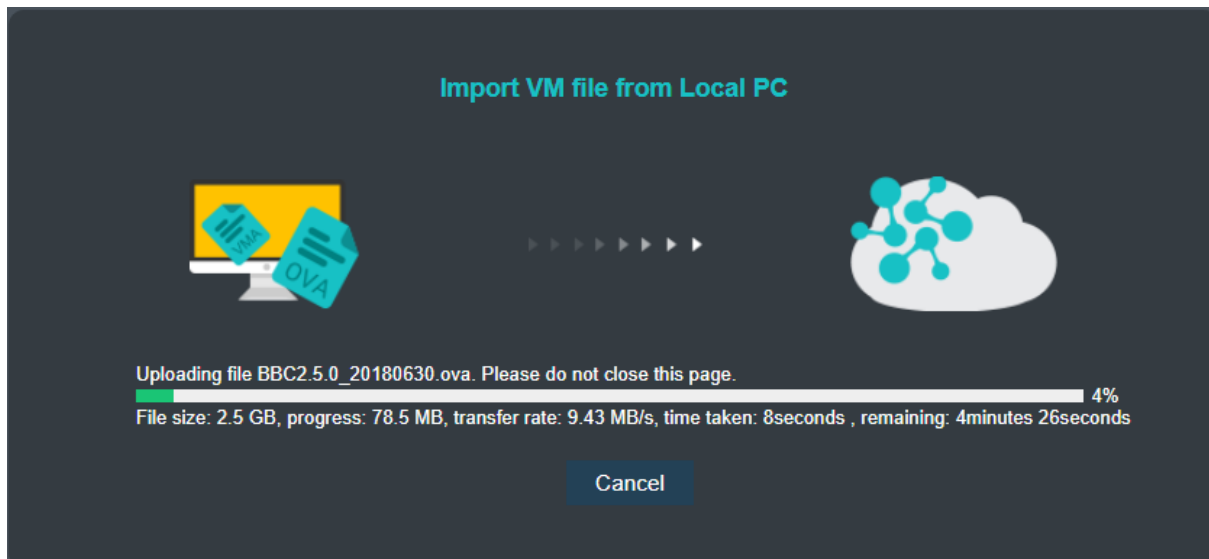
[Operating Steps]

1. Log in to the home page of SCP platform, click **【Resources】** > **【Virtual Machine】** option; click **New**; select **Import Virtual Machine** in **【Create Virtual Machine】** window;

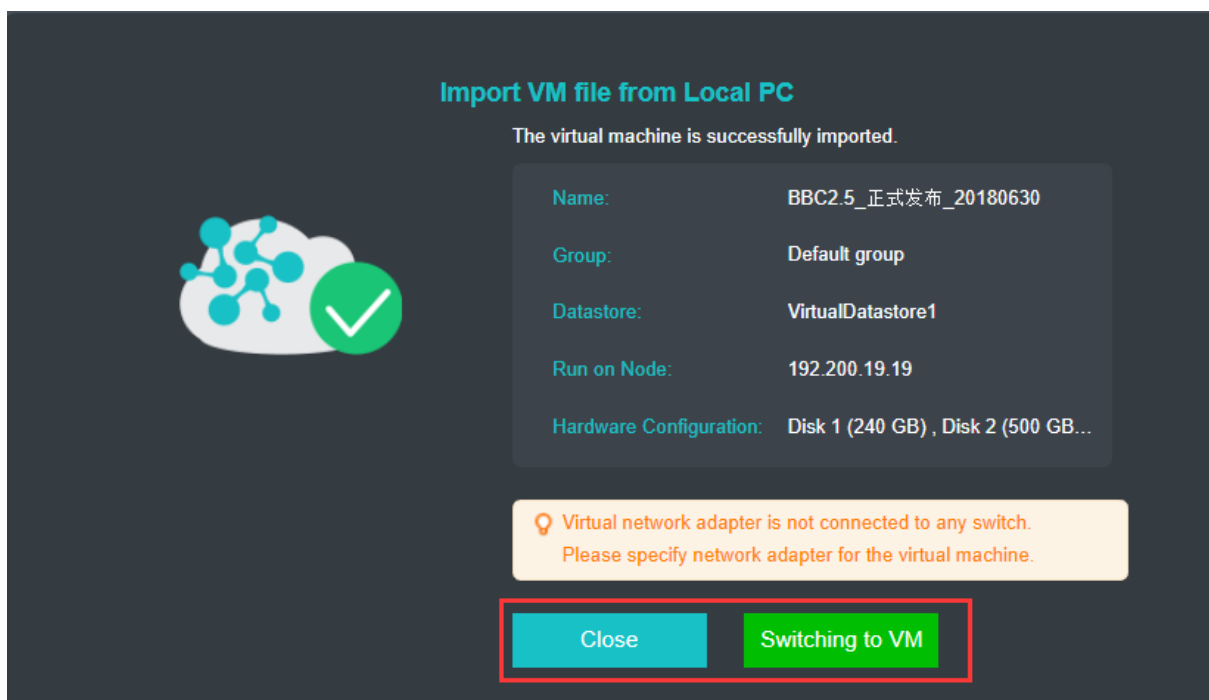


2. Select the virtual machine to be imported and the corresponding virtual machine parameters; click **Import**;





3. After import, click **Close** or **Switching to VM** to edit the virtual machine.



: When importing the virtual machine, its network card is not connected to the switch. You can click Switching to VM to configure the virtual machine.

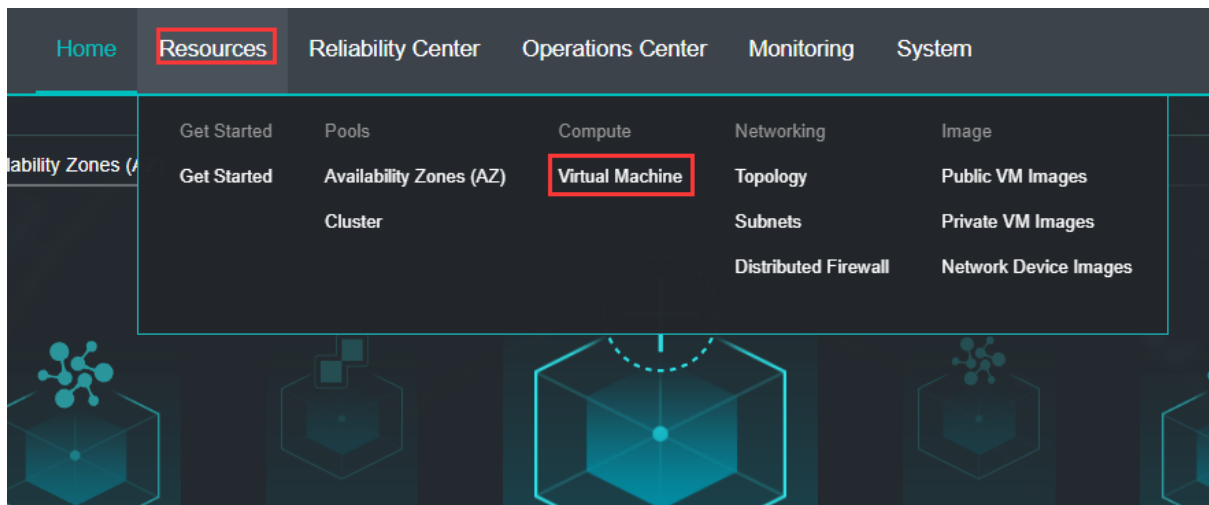
3.2.3.4 Migration of Virtual Machine

[Function Description]

This function is used for migrating the virtual machine and supports the migration of virtual machines across Resource Pool.

[Operating Steps]

1. Log in to the home page of SCP platform, select **【Resources】** > **【Virtual Machine】** ; select the virtual machine to be migrated; click **【More】** > **【Migrate】** ;



<input type="checkbox"/>	Power...	146_user	146.0.0.10	Default Group	aCloud	0%	47%	53%	More
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	8%	100%		Console
<input type="checkbox"/>	Power...	149_user	149.0.0.10	Default Group	aCloud	0%	47%		Power On
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	10%	100%		Shut Down
<input type="checkbox"/>	Power...	147_user	147.0.0.10	Default Group	aCloud	1%	34%		Suspend
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	12%	96%		Reset
<input type="checkbox"/>	Power...	145_user	145.0.0.10	Default Group	aCloud	0%	47%		Power Off
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	6%	100%		Tag
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	9%	100%		Clone
<input type="checkbox"/>	Power...	142_user	142.0.0.10	Default Group	aCloud	0%	45%		Edit
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	12%	100%		Create image
<input type="checkbox"/>	Power...	Lab-server template	192.200.19.20, 19...	Default Group	aCloud	0%	31%		Snapshots
<input type="checkbox"/>	Power...	win2012	192.168.1.222	Default Group	aCloud	0%	16%		Export
<input type="checkbox"/>	Power...	144_user	144.0.0.10	Default Group	aCloud	-	-	-	Migrate
<input type="checkbox"/>	Power...	Demo_WANO_SD...	-	Default Group	aCloud	-	-	-	Backups
<input checked="" type="checkbox"/>	Power...	BBC2.5	-	Default Group	aCloud	-	-	-	Backup

2. Select the Resource Pool, cluster, running position and storage of migration; click **OK**;

Migrate

Current Location

Name: win_server_2003

Availability Zone: DC zone (HCI)

Cluster: DC (CTI)

Run on Node: <Auto>

Datastore: DataStore

Destination Location

Name: win_server_2003

Availability Zone: DC zone (HCI)

Cluster: DC (CTI)

Run on Node: 192.168.1.36

Datastore: DataStore

☒ Power on aCloud virtual machine upon migration completion

OK

Cancel



: When migrating the virtual machine, the target location may be the Resource Pool where the virtual machine is located, or other Resource Pool; in case of migration upon powering on, migrate to the HCI cluster and the machine is kept on and to VMware cluster and the machine is off; you may also check "Start HCI Virtual Machine Automatically after Migration" and you need to check "Automatically Turn off HCI Virtual Machine to Complete Migration", or you have to manually turn off the machine to complete the migration; in case of migration in off state, the machine will be always in off state after migration, but you may check "Automatically Start HCI Virtual Machine after Migration".

3. You can see the progress of migration in the task bar.

Tasks							
All		Disaster Recovery					
Status	Action	Object	Start Time	End Time	Admin	Operation	
<div><div></div>37%</div>	Migrate virtual m...	BBC2...	2018-10-10 18:22:37	-	admin (192.168.19.206)	View Cancel	
<div>Finish</div>	Migrate virtual m...	win_server_2003	2018-10-10 18:21:22	2018-10-10 18:21:40	admin (192.168.19.206)	View	
<div>Finish</div>	Edit cluster auth...	Labs Server Zone	2018-10-10 18:16:21	2018-10-10 18:16:25	admin (192.168.19.206)	View	
<div>Failed</div>	Add availability z...	Labs	2018-10-10 18:11:10	2018-10-10 18:11:10	admin (192.168.19.206)	View	
<div>Failed</div>	Add availability z...	Labs	2018-10-10 18:11:09	2018-10-10 18:11:10	admin (192.168.19.206)	View	
<div>Finish</div>	Add availability z...	Labs	2018-10-10 18:11:07	2018-10-10 18:11:16	admin (192.168.19.206)	View	
<div>Finish</div>	Log in	admin	2018-10-10 18:07:21	2018-10-10 18:07:21	admin (192.168.19.206)	View	
<div>Finish</div>	Upload image	Image subunit64	2018-10-10 18:00:35	2018-10-10 18:02:41	blake (192.168.19.206)	View	

3.2.3.5 Allocation of Virtual Machine

[Function Description]

This function is applicable to the allocation of virtual machine, which can be allocated to the Tenant or Tenant members.

[Operating Steps]

1. Log in to the home page of SCP platform, select **【Resources】** > **【Virtual Machine】** ; select the virtual machine to be allocated; click **【More】** > **【Allocate】** ;

Name	ID	Group	Cloud	Progress
Powere... 146_user	146.0.0.10	Default Group	aCloud	0% 47% 53%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	6% 100%
Powere... 149_user	149.0.0.10	Default Group	aCloud	0% 47%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	10% 100%
Powere... 147_user	147.0.0.10	Default Group	aCloud	0% 34%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	6% 96%
Powere... 145_user	145.0.0.10	Default Group	aCloud	0% 47%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	5% 100%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	10% 100%
Powere... 142_user	142.0.0.10	Default Group	aCloud	0% 45%
Powere... Demo_WANO_SD...	-	Default Group	aCloud	8% 100%
Powere... Lab-server template	192.200.19.20, 19...	Default Group	aCloud	0% 31%
Powere... win2012	192.168.1.222	Default Group	aCloud	0% 16%
Powere... 144_user	144.0.0.10	Default Group	aCloud	-
Powere... Demo_WANO_SD...	-	Default Group	aCloud	-



: 1. allocating HCI virtual machine to the Tenant will disconnect the network of the virtual machine; after allocation, the virtual machine can be found in the default group or Tenant member of the corresponding Tenant. The network of the virtual machine should be configured manually.

2. Select the Tenant and Tenant member (can be null) to be allocated; click OK;

Assign Virtual machines

Select organization:
CTI_Blake

Select users:
<None>

Assigning virtual machines from HCI platform to organization will disconnect them. You may find the associated default organization or cloud user and check the virtual machine later when you finish assignment, and change VM network settings manually.

OK

Cancel



: Do not allocate the virtual machine across Resource Pool.

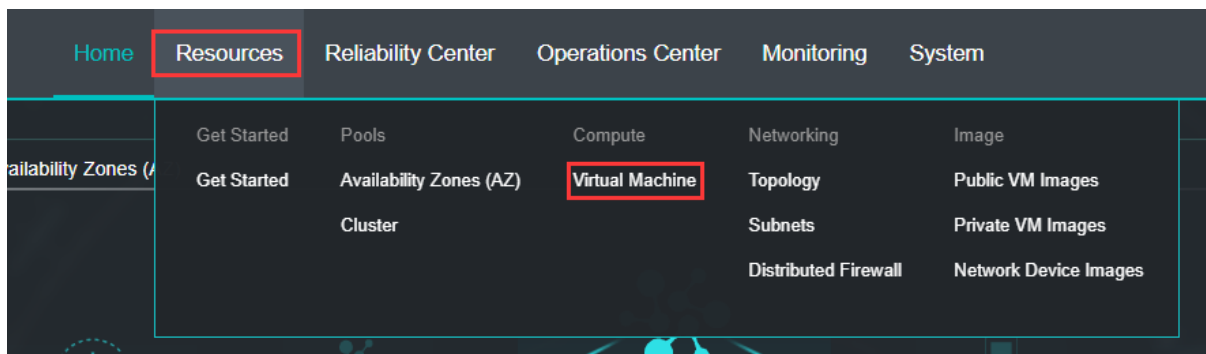
3.2.3.6 Deallocation of Virtual Machine

[Function Description]

This function is applicable to the de-allocation of virtual machine.

[Operating Steps]

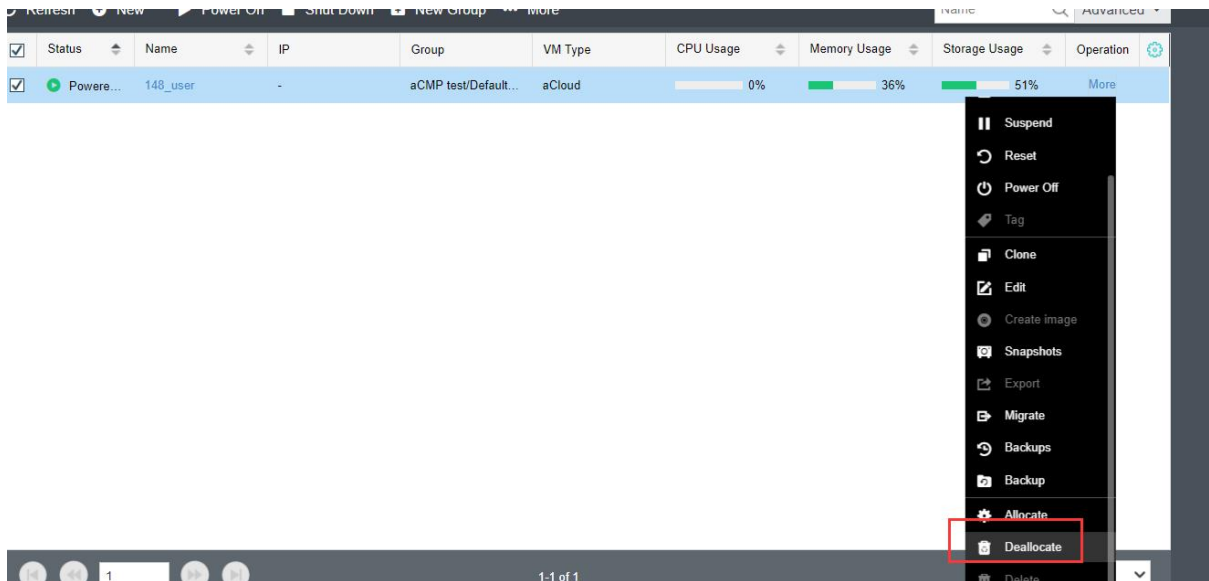
- Log in to the home page of SCP platform, select **【Resources】** > **【Virtual Machine】** ; select the Tenant or Tenant member of the virtual machine to be de-allocated;



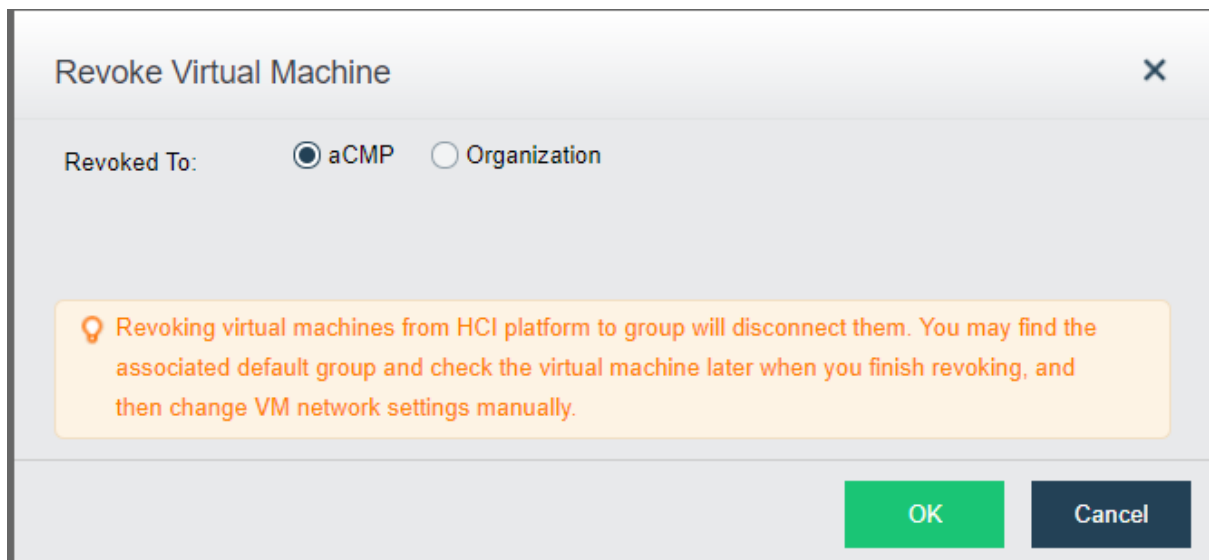
Group	Status	Name	IP	Group	VM Type	CPU Usage	Memory Usage	Storage Usage	Operation
Virtual Machines(78)									
DC zone (HCI)(30)									
ctf corp(0)									
DC (CTI)(19)									
Default Group(11)									
DR zone (HCI)(22)									
CTI_Blake(0)									
jianjie corp(0)									
DR(demo)(0)									
Default Group(22)									
Lab(1)									
Lab Server Zone(0)									
Default Group(1)									
	Alarm	Linux	-	Default Group	aCloud	1%	100%	12%	More
	Alarm	BBC2	-	Default Group	aCloud	3%	58%	2%	More
	Alarm	BBC2.5_Test	-	Default Group	aCloud	3%	85%	2%	More
	Alarm	Linux_test	-	Default Group	aCloud	1%	26%	0%	More
	Power...	Demo_WANO_SD...	-	Default Group	aCloud	9%	100%	18%	More
	Power...	148_user	-	Default Group	aCloud	0%	36%	51%	More
	Power...	146_user	146.0.0.10	Default Group	aCloud	0%	47%	53%	More
	Power...	Demo_WANO_SD...	-	Default Group	aCloud	15%	100%	18%	More
	Power...	149_user	149.0.0.10	Default Group	aCloud	0%	47%	53%	More
	Power...	Demo_WANO_SD...	-	Default Group	aCloud	11%	100%	19%	More



- 1) The virtual machine allocated with no Tenant or Tenant member cannot be de-allocated.
- 2) Select the virtual machine to be de-allocated; click **【More】** > **【De-allocate】** ;



- 2 In case of a virtual machine owned by an Tenant member, the virtual machine may be de-allocated to the Tenant or cloud platform, or can only de-allocated to cloud platform;



3. You can see the progress of de-allocation in the task bar.

3.2.3 Network Administration

It can perform unified network management on the managed clusters. Based on different Resource Pools and Tenants, the super administrator can view the corresponding network topology, and the Tenant administrator can also view the network structure of relevant Tenants. Meanwhile, tenants are supported to configure their own distributed firewall policies. The firewall policy of each tenant only takes effect in the tenant's domain and does not conflict with the super administrator's configuration policy.

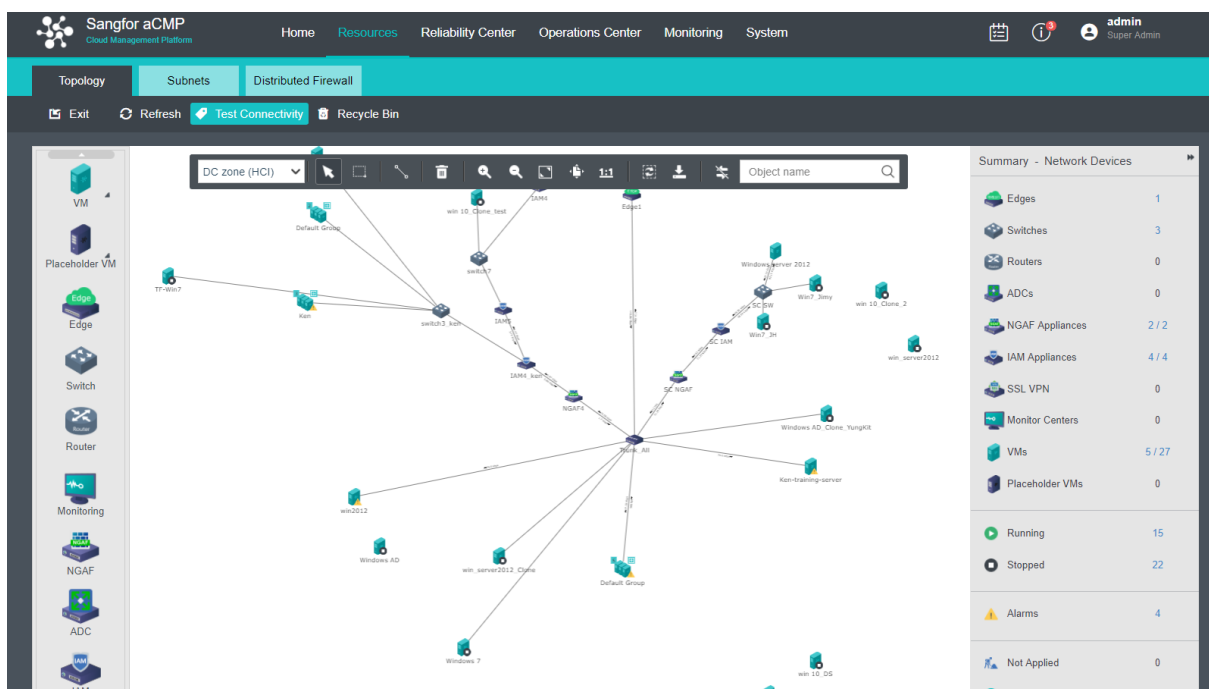
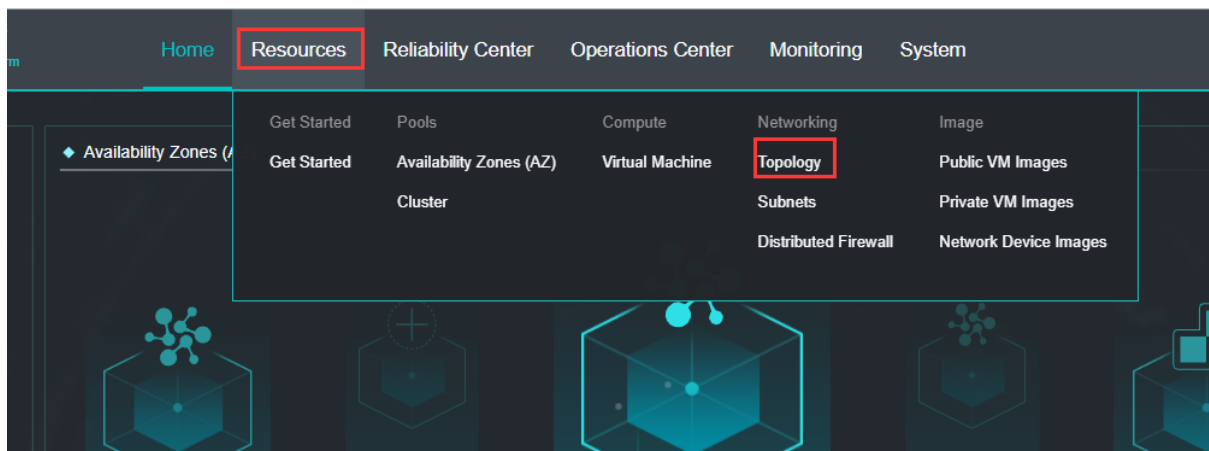
3.2.3.1 Topology

[Function Description]

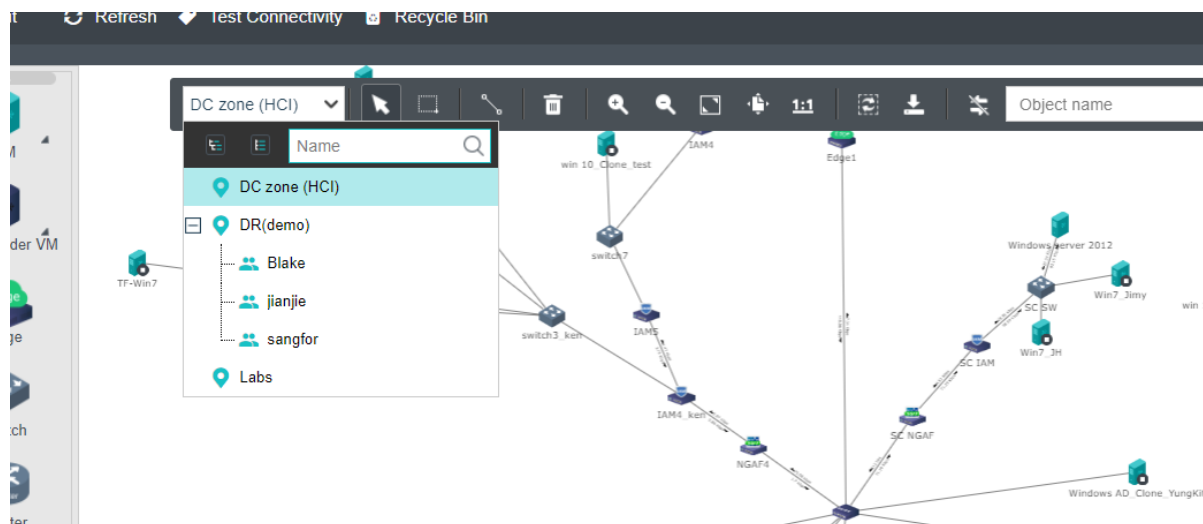
The super administrator can view the network status of the SCP platform, and can view and adjust the corresponding network structure in the Resource Pool or Tenant as a dimension.

[Operating Steps]

1. Log in to the SCP administrator interface, and click **【Resources】** > **【Topology】** to enter the topology interface;



2. Select the corresponding Resource Pools or Tenants. You can view the corresponding network topology;



3. Click **Subnets** to enter the list showing all subnets, and click **New** to distribute new network for the Tenant.

Name	Availability Zone	Organization	Connected To	Operation
DR test Net	DR(demo)	sangfor	DefaultEdge	Edit Delete

Create Subnet

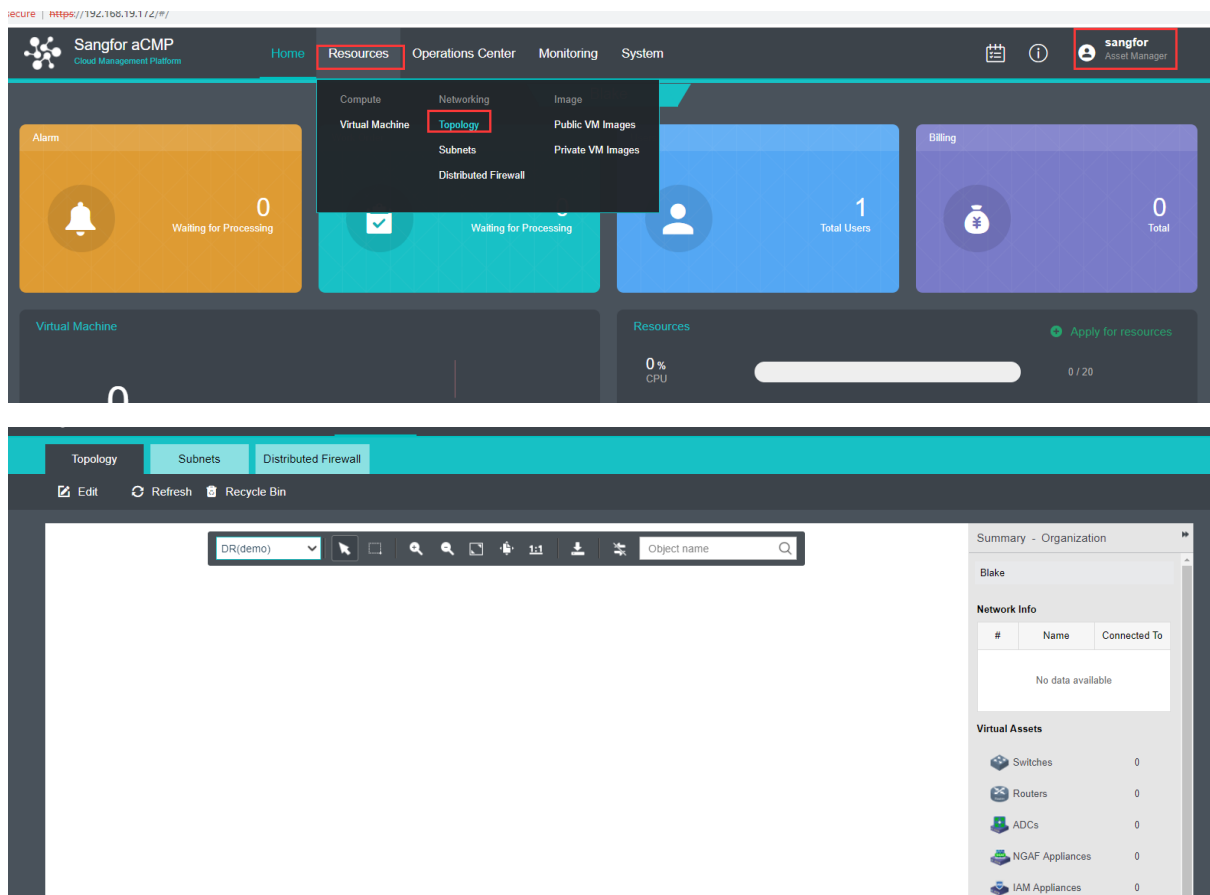
Availability Zone:

Organization:

Subnet:

Connected To:

4. The Tenant administrator can view the network that it manages, and can do some network operations, such as adding switches and routers. The Tenant administrator can also login with the its account password and click **Resources** > **Topology** to view the corresponding information;



3.2.3.2 Network

[Function Description]

The admin administrator can manage the tenant's network in the Network module. Two types of network can be created under Network module which are VPC network and a classic network for the tenant.

VPC networks are suitable for scenarios that require high network security isolation. Tenants can freely use subnets in the VPC network without worrying about network conflicts.

The classic network is suitable for direct communication scenarios such as tenant-to-tenant or physical environments. When a classic network is newly created, an egress switch will be created by default, and this switch can be connected to the physical edge, routers, NFV and other virtual devices.

[Precautions]

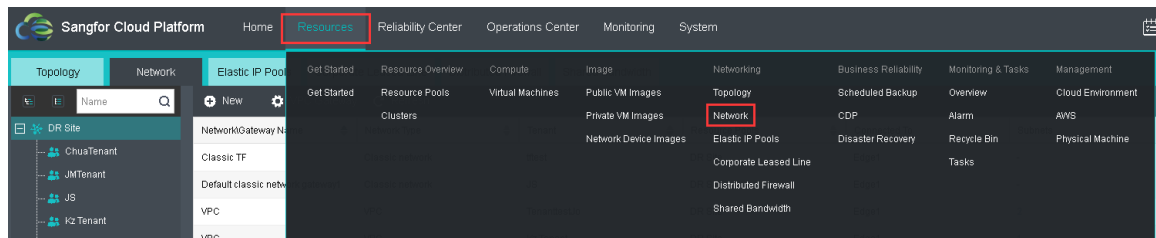
Only 1 VPC network can be created per each resource pools associated to the tenant.

[Prerequisites]

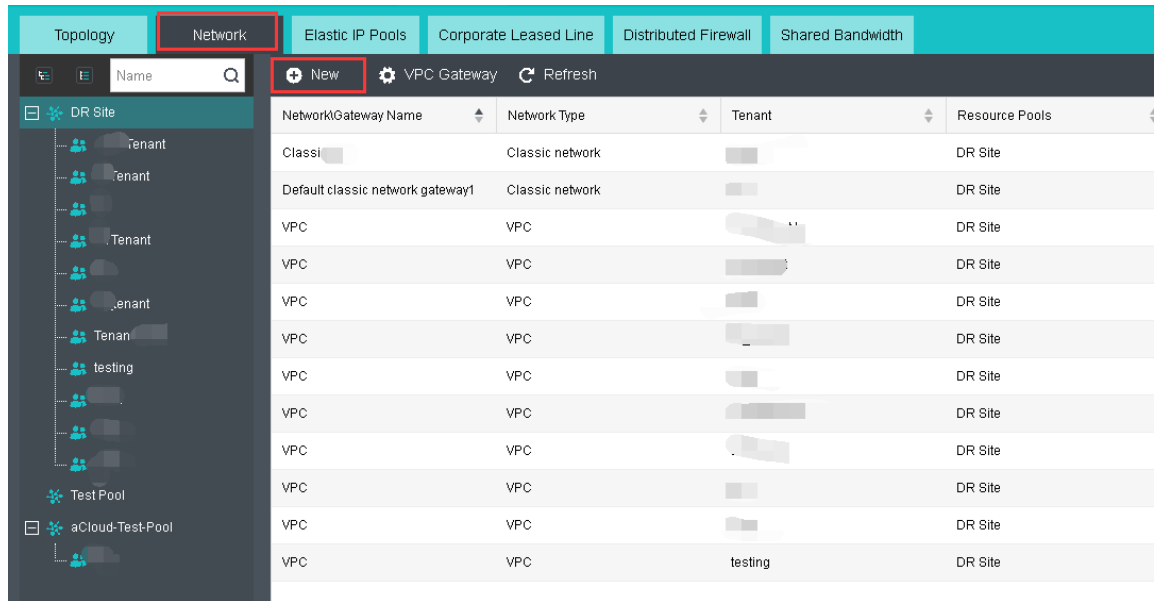
Tenant has been successfully created.

[Operating Steps]

1. Log in to the SCP administrator interface, and click **【Resources】** > **【Network】** to enter the tenant network.



2. Click New to create a new network for the tenant.



3. Select the corresponding tenant, and choose to create which type of network. Click OK to create the network for selected tenant.

Create Subnet

Tenant:

testing

Resource Pool:

DR Site

Network Type:

☐ VPC
 ☒ Classic network

Gateway Name:

Default classic network gate

Connected To:

Edge1

+ New

(1 added)

OK

Cancel

- After created, it will appear in the network. Only classic network allowed delete as VPC usually will be auto created after created the Tenant.

NetworkGateway Name	Network Type	Tenant	Resource Pools	Connected To	Subnets	Operation
Default classic network gateway1	Classic network	testing	DR Site	Edge1	-	Edit Delete
VPC	VPC	testing	DR Site	Edge1	1	Edit

3.2.3.3 Elastic IP Pools

[Function Description]

Elastic IP is an independent "public IP" resource, which can be associate to virtual machines, routers, AD, SSL VPN and other devices of the VPC network. Besides, Elastic IP can also be dynamically disassociate to meet the requirements of flexible management and dynamic allocation.

[Precautious]

- Elastic IP needs to create an elastic IP pool and associate the elastic IP pool with a resource pool before the IP pool can be used by tenants.
- An elastic IP pool can be bound to multiple resource pools, and a resource pool can also be bound to multiple elastic IP pools. The elastic IP pool bound to the resource pool can be seen by all VPCs under it.
- Line types can be customized, but the built-in line types in the system are uneditable.
- The Elastic IP quota for tenants are supported to be allocate by line type.
- Elastic IP pools that have allocated quotas do not support modifying the elastic IP line type or deleting the elastic IP.

[Operating Steps]

- Log in to the SCP platform, select **【Resources】** > **【Elastic IP Pools】** , and click **【Create Elastic IP Pool】** .

Name	Description	Resource Pool	Line Type	IP Range	IP Addresses	VLAN ID	Total Bandwidth	Assigned	Outbound	Inbound	Operation
192.168.19.x	-	All	Goukap Line	192.168.19.50-192.1...	14/16	-	1000 Mbps	350 Mbps	0 Mbps	0 Mbps	Edit Delete
test172.16.10.X	-	All	172	172.16.10.2-172.16...	1/9	-	50 Mbps	5 Mbps	0 Mbps	0 Mbps	Edit Delete

- Fill in the name and description of the elastic IP pool, select the resource pool and line type

to be associated, set the total bandwidth, configure the corresponding vlan ID, add the elastic IP range, and click <OK> to complete the creation.

Create Elastic IP Pool

Name:

Testing Elastic IP Pool

Description:

Optional

Resource Pool:

☒ All
 ☐ Specified

Line Type:

Customize Line

Total Bandwidth:

50

Mbps

VLAN ID:

☐ Specified
 ☒ VLAN ID of resource pool's VPC gateway

IP Range:

+ Add

IP Range	Netmask	Default Gateway	Operation
10.10.10.2-10....	255.255.255.0	10.10.10.1	Edit Delete

OK

Cancel

3. After the elastic IP pool is created, the platform administrator can edit and delete it.

Topology Network Elastic IP Pools Corporate Leased Line Distributed Firewall Shared Bandwidth											
Create Elastic IP Pool Line Type Refresh											
Name	Description	Resource Pool	Line Type	IP Range	IP Addresses	VLAN ID	Total Bandwidth	Assigned	Outbound	Inbound	Operation
192.168.19.x	-	All	Ooukap Line	192.168.19.50-192.1...	14/16	-	1000 Mbps	350 Mbps	0 Mbps	0 Mbps	Edit Delete
Testing Elastic IP Pool	-	All	Customize Line	10.10.10.2-10.10.10.50	0/49	-	50 Mbps	0 Mbps	0 Mbps	0 Mbps	Edit Delete
test172.16.10.X	-	All	172	172.16.10.2-172.16...	1/19	-	50 Mbps	5 Mbps	0 Mbps	0 Mbps	Edit Delete

3.2.3.4 Corporate Leased Line

[Function Description]

The VPC network of SCP tenants can be configured with enterprise leased lines through the web UI to communicate with the second and third layers of the environment outside the VPC. Gateway must be specified for each resource pool in order to use the corporate leased line function.

[Precautious]

In order to avoid IP address conflicts, it is recommended that the enterprise leased line of each subnet to be configured with a different VLAN ID.

[Prerequisites]

1. The SCP platform has configured the gateway for the lease line.
2. SCP platform has created tenants and VPC network.

[Operating Steps]

1. Select **【Resources】 > 【Corporate Leased Line】** and click Gateway to specify the gateway.

The screenshot shows the Sangfor Cloud Platform interface. The 'Resources' tab is selected, and the 'Corporate Leased Line' sub-tab is active. The 'Gateway' button is highlighted. A modal window titled 'Gateway' is open, showing a list of resource pools: 'DR Site', 'aCloud-Test-Pool', and 'Test Pool'. The 'Test Pool' is selected, and the 'Add Gateway' button is highlighted. The 'Name' field is set to 'Gateway 1', and the 'Edge' dropdown is set to 'edge1'.

2. Click Create Corporate Leased Line to create a new leased line.

The screenshot shows the Sangfor Cloud Platform interface. The 'Corporate Leased Line' sub-tab is active, and the 'Create Corporate Leased Line' button is highlighted.

3. Configure the name and description, select the VPC network, Subnet, Gateway, and configure the VLANID.

Create Corporate Leased Line

Basics

Name:

Leased Line for testing

Description:

VPC :

DR Site/testing/VPC

Subnet:

Subnet 1 (192.168.0.0/24)

Advanced

Gateway:

Gateway 1

VLAN ID:

If unspecified, VLAN ID will be set to Trunk all by default. This may cause network conflict because network will not be isolated.

OK

Cancel

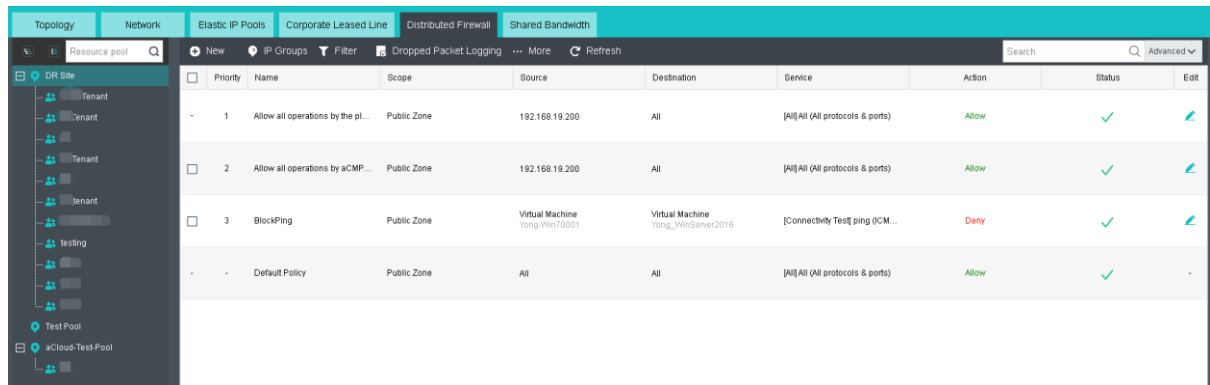
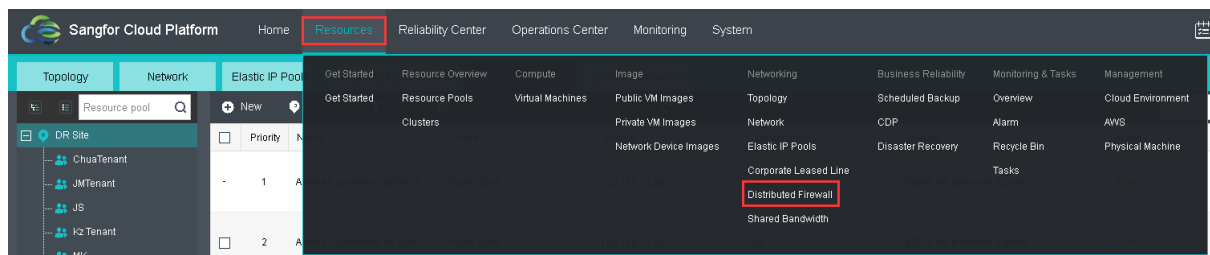
3.2.3.5 Distributed Firewalls

[Function Description]

The Tenant administrator can set firewall rules for the networks in the effective domain, and the super administrator can set firewall rules for the entire platform network, which do not conflict with each other.

[Operating Steps]

1. Log in to the SCP administrator interface, and click **【Resources】 > 【Distributed Firewalls】** to enter the firewall edit page and to view the existing firewall rules;



2 . Click ⊕ **New**, select Resource Pool and applicable scope, set match clauses, select the services and policy actions to be valid, and click OK after all is confirmed;

Add New Rule

☒ Enabled

Name:

Resource Pool:

DR Site

Scope:

Public Zone

- Match Clause

Source

☒ Any IP address

☐ Specified IP address

IP Group

Select

...

☐ Specified VM

Virtual Mac

Select

...

→

Destination

☒ Any IP address

☐ Specified IP address

IP Group

Select

...

☐ Specified VM

Virtual Mac

Select

...

The rule only applies to VMs in classic network environment.

Service:

Select

Action:

☒ Allow

☐ Deny

OK

Cancel

Select Service

Available

Predefined Service

Custom Service

Expand All

Collapse All

Service name, protocol, port

Service	Protocol: Port
<input type="checkbox"/> Video	
<input type="checkbox"/> File Transfer	
<input type="checkbox"/> Authentication Protocol	
<input type="checkbox"/> VPN	
<input type="checkbox"/> Remote Access	
<input type="checkbox"/> Email Protocol	
<input type="checkbox"/> Cluster	
<input type="checkbox"/> Routing Protocol	
<input type="checkbox"/> WEB	
<input checked="" type="checkbox"/> Connectivity Test	
<input checked="" type="checkbox"/> ping	ICMP:type:8,code:0

Selected

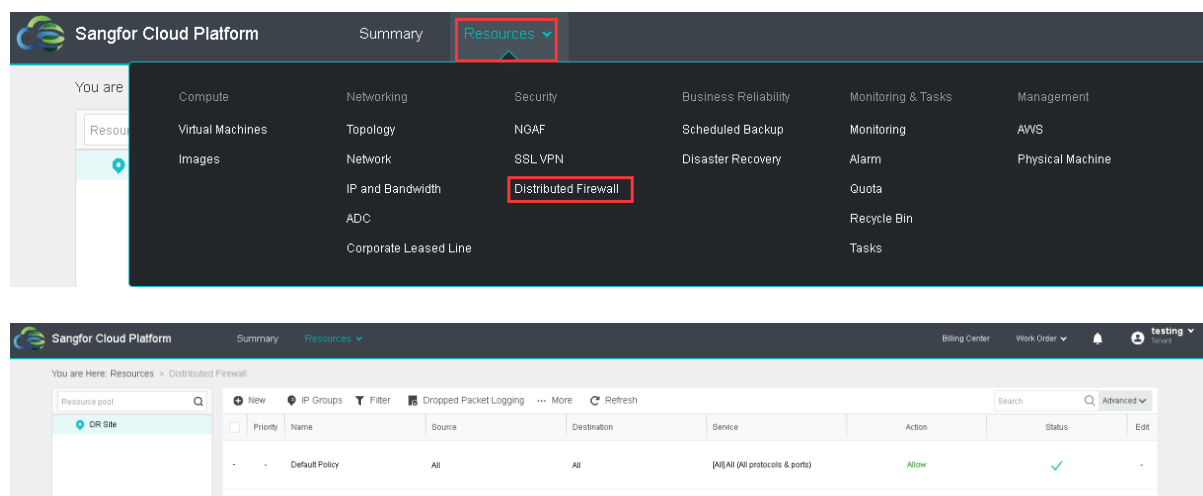
Clear

Service	Protocol: Port	Remove
ping	ICMP:type:8,code:0	<div></div>

OK

Cancel

3. Similarly, you can set the firewall policies in the Tenant subnet by logging in with the Tenant administrator's account.



3.2.3.6 Shared Bandwidth

[Function Description]

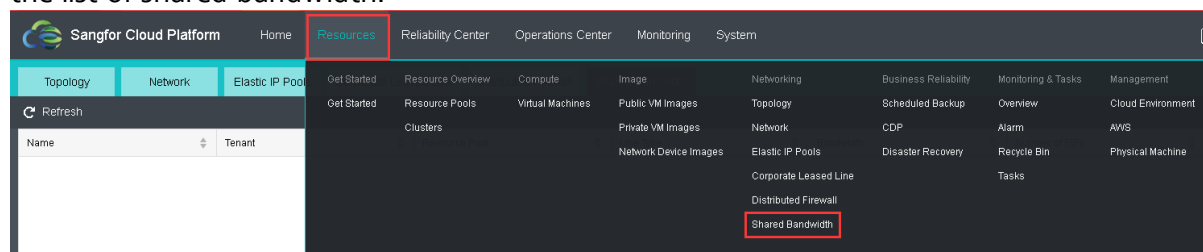
Sharing bandwidth allows multiple elastic IPs to share the same bandwidth. Virtual machines, routers, NFVs and other devices that have bound elastic IPs under the same resource pool shared the same bandwidth resources. It can improve the utilization of bandwidth and facilitate the management of administrators.

[Precautious]

1. The admin administrator can only edit and delete the shared bandwidth but not adding a new shared bandwidth. Tenants can create shared bandwidth at the tenant portal and bind it to an elastic IP.
2. If the elastic IP associated in the shared bandwidth is bound to a virtual machine or NFV device, the shared bandwidth cannot be deleted directly at this time. You need to unbind the elastic IP from the device before deleting it.

[Operating Steps]

1. Log in to the SCP platform and select **【Resources】** > **【Shared Bandwidth】** to enter the list of shared bandwidth.



2. Select a shared bandwidth and click [Edit] to set the name and bandwidth of the shared bandwidth.

The screenshot shows the 'Edit Shared Bandwidth' dialog box. The 'Name' field contains 'Test Shared Bandwidth', the 'Line' dropdown is set to 'Goukap Line', and the 'Bandwidth' section shows '5 Mbps' selected. In the background table, the 'Delete' button for the 'Test Shared Bandwidth' entry is highlighted with a red box.

3. Click [Delete] to delete the shared bandwidth.

Name	Tenant	Resource Pool	Line Type	Bandwidth	Number of EIPs	Operation
Test Shared Bandwidth	tfest	DR Site	Goukap Line	5 Mbps	1	Edit Delete

3.2.4 Business Reliability

Refer to the section 3.3.2.1 and 3.3.3.

3.2.5 Monitoring & Tasks

Can refer to section 3.1.2, 3.1.3, and 3.4.

3.2.6 Management

3.2.6.1 Cloud Environment

[Function Description]

Sangfor SCP supports the management of AWS and can add the resources on Alibaba Cloud to SCP in the form of a cloud environment. After adding a cloud environment, you can directly use the AWS cloud server (EC2) on the SCP. Besides, it is supported to assign to tenant.

[Precautions]

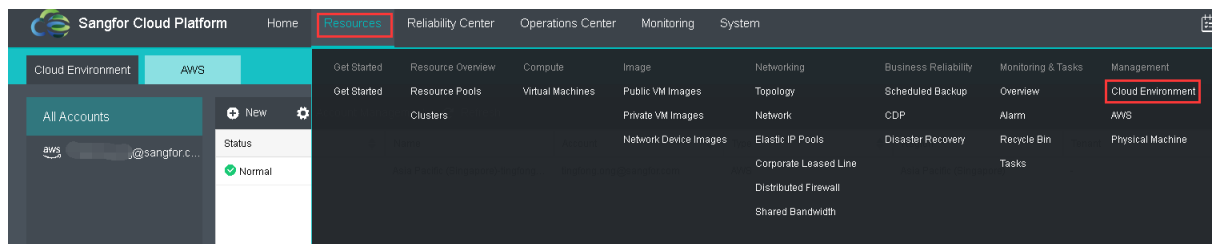
1. When an AWS account has multiple AccessKeys, different AccessKeys cannot be used to manage the same cloud environment.
2. Since AWS has a monthly limit on the number of free API queries, when using the same AWS account to add a cloud environment, it is not recommended that the number of cloud environments exceed 10. If it exceeds 10, the user needs to pay.
3. If the AWS account is in arrears, it will report service unavailable when collecting cloud environment data, and you can recharge it in the Alibaba Cloud console.

[Prerequisites]

1. SCP configuration which enable the SCP to have internet connection.
2. The Access Key ID and Access Key Secret of the AWS account have been obtained. AWS Access Key ID and Access Key Secret are your only credentials for accessing Alibaba Cloud API. AccessKeyID is similar to the identification of identity, and Access key secret is similar to your login password, which is used to sign your access parameters to prevent tampering.

[Operating Steps]

1. Use "admin" to log in to SCP's platform and enter [Resources] > Cloud Environment].



2. Click <Add> to add a new cloud environment:

- Type: AWS
- Add Account: select whether Create One or Use existing one(for user who previously added the account).
- Account Name: custom cloud account
- Access Key ID: Obtained from the client
- Access Key Secret: Obtain from the client side
- Sync Interval: 60 minutes (the new resources added by the cloud account on the AWS platform will be automatically updated within the specified cycle. It is recommended to use the default cycle. The shorter the cycle, the higher the SCP platform resources will be occupied)

Resources > Cloud Environment > Create Clo...

1

Select Account

Type: AWS

Add Account: ☒ Create one ☐ Use existing one

Account Name: ⓘ

Access Key ID: ⓘ

Access Key Secret:

Sync Interval: mins ⓘ

3. Click <Next> and select a region to create the corresponding cloud environment. For example, if a customer has an virtual machine in Tokyo AWS, he can select Asia Pacific(Tokyo) and add it as a cloud environment.

✓

2

Select Account
Select Region

Please select region(s) to create corresponding cloud environment.

Available (14)
Region

☒ Region

☐ Europe (Milan)

☐ Europe (Ireland)

☐ Asia Pacific (Seoul)

☐ Middle East (Bahrain)

☒ Asia Pacific (Tokyo)

☐ South America (Sao Paulo)

☐ Canada (Central)

☐ Asia Pacific (Hong Kong)

☐ Asia Pacific (Singapore)

☐ Asia Pacific (Sydney)

Selected (1)
Clear

Region	Cloud Environment
Asia Pacific (Tokyo)	Asia Pacific (Tokyo)-@sangfor.com

3.2.6.2 AWS

[Function Description]

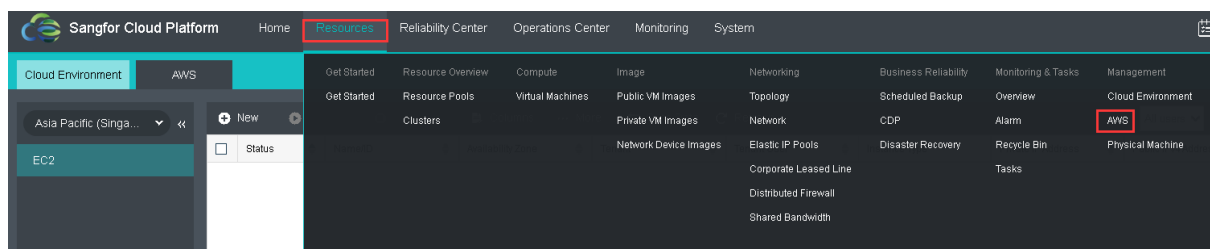
After AWS account is added to SCP, you can directly create and use AWS virtual machine on SCP to achieve centralized operation and maintenance.

[Prerequisites]

When creating an virtual machine, the AWSaccount needs to have enough balance.

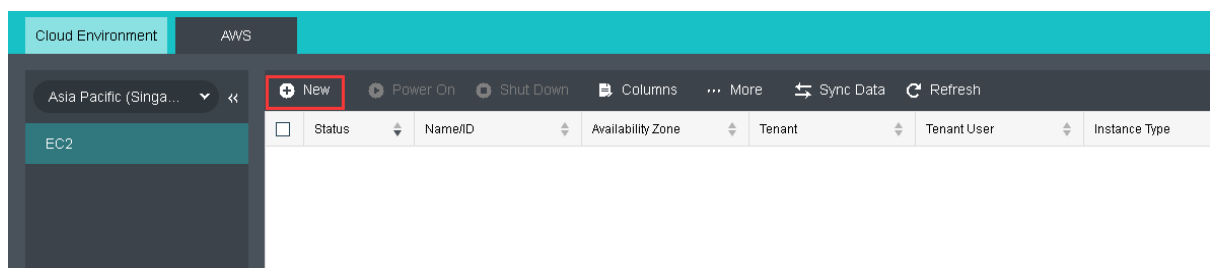
[Operating Steps]

1. Use "admin" account to log in to SCP platform and enter [Resources] > [AWS].



2. Click <New> to start creating virtual machine.

- Choose a suitable cloud environment and resources pool.
- Customize the payment type, number of virtual machine, specifications and other information.



3. After confirming the information, you can complete the creation of the virtual machine.

4. Click [Remote Connection], you can enter the VNC password to enter the virtual machine console. If you forget the password, you can click [More] to modify the remote connection password.

3.2.6.3 Physical Machine

[Function description]

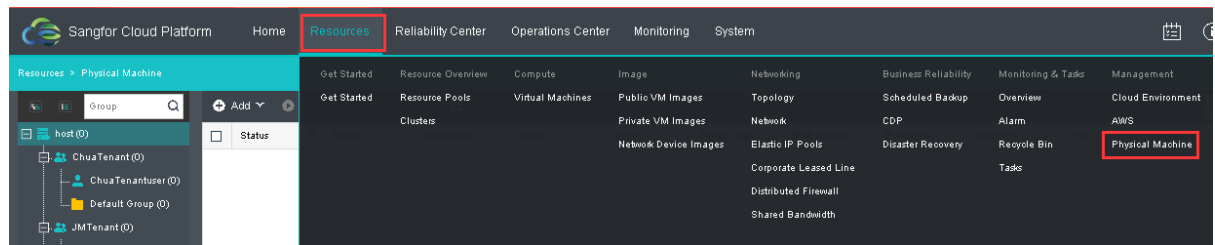
Some applications with extremely high performance requirements are generally deployed on physical servers, such as core databases and high-performance computing applications. SCP provides the function of hosting physical machines and provides dedicated physical servers for applications to ensure the high performance of core applications and stability. By setting the IPMI port of the physical server, SCP can implement operations such as managing, monitoring, and alarming of the physical server.

[Prerequisites]

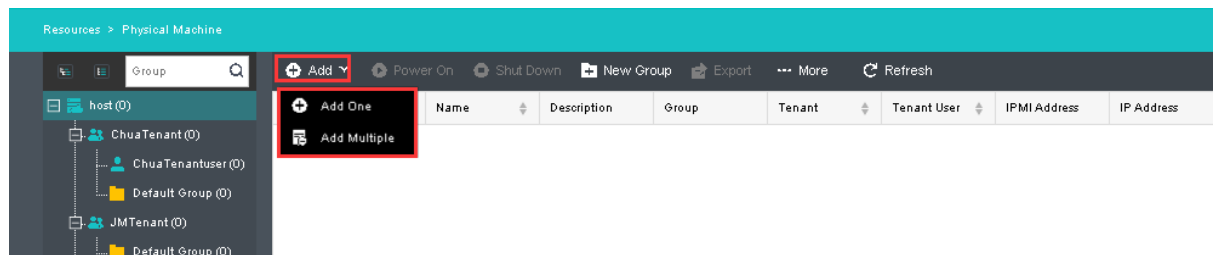
SCP platform needs to communicate with the IPMI port of the physical server.

[Operating Steps]

1. Log in to the SCP as the admin administrator, select [Resources] > [Physical Machine] to enter the physical machine management interface.



2. Click <Add>, you can add a physical machine, support single add and batch add.



Resources > Physical Machine > Add Physical...

Basics

Name:

Description:

Group:

host/Default Group

Settings

IPMI Address:

e.g., 192.168.1.1

Port:

623

Username:

Password:

Specifications

IP Address:

e.g., 192.168.1.1

OS:

Select OS

CPU:

core(s)

Memory:

GB

Assets:

Server Room:

Server Rack:

Vendor:

3. After adding, you can view the added physical machine in the physical machine list.
4. Click [Console] to jump to the server BMC login page.
5. Click [More] to start and shut down the physical machine, and assign the physical machine to tenants

3.3 Operations Center

Sangfor SCP user management has multi-level management authority control, including platform administrators, organization administrators and organization members by default. Sangfor SCP can manage specific resources by creating roles according to users' resource management requirements of different scenarios, thus greatly improving the management accuracy.

For example, if a company has an R&D department and a sales department that share a hyper-converged environment, then the platform administrator can create two organization administrators to respectively help manage the two departments. This is not only beneficial to inter-department management, but also greatly reduces the O&M strength for platform administrators.

3.3.1 Users

3.3.1.1 Platform Administrator

[Function description]

Sangfor SCP cloud platform requires an administrator to manage the platform, and the platform has built-in super administrator.

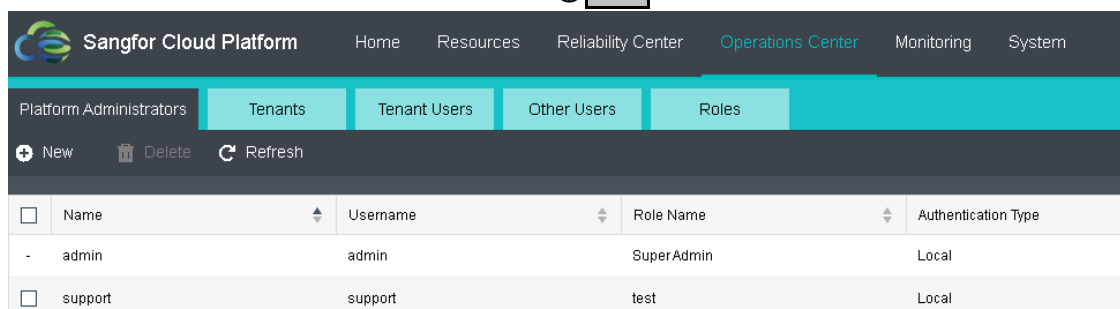
The super administrator can create a custom platform administrator to assist the super administrator in the management of the SCP platform.

[Prerequisites]

The platform super administrator admin has created a corresponding admin role.

[Operating Steps]

1. Log in to the home page of the SCP cloud platform and select **【Operations Center】** > **【Platform Administrator】**. Click **⊕New** to create new administrator.



<input type="checkbox"/>	Name	Username	Role Name	Authentication Type
<input type="checkbox"/>	admin	admin	SuperAdmin	Local
<input type="checkbox"/>	support	support	test	Local

2. Enter the name of the platform administrator, select the appropriate role, and enter the user name, email address, mobile phone number, and password to create a new platform administrator.

3. After the new platform administrator is created, the super administrator can edit, reset, and delete the existing platform administrator.

3.3.1.2 Roles

[Function description]

The platform super administrator admin can customize the role type, and the platform has built-in three role types: Platform administrator, Tenant, and Tenant user.

Super administrator: the role type is "Platform Administrator", it is the default platform management role with the highest permission to manage the entire platform.

Tenant Administrator: The role type is "Tenant". It is the default tenant management role that able to manage all the tenant users. Super administrator of a tenant user.

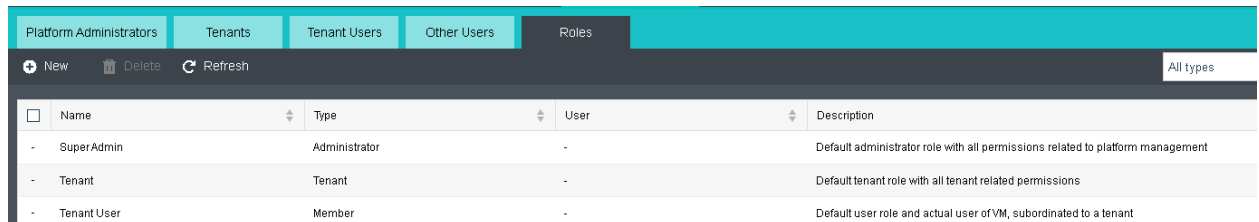
Tenant User: The role type is "Member". The default common user role is the end user of the cloud virtual machine.

[Prerequisites]

Sangfor SCP resources are ready and the roles are planned.

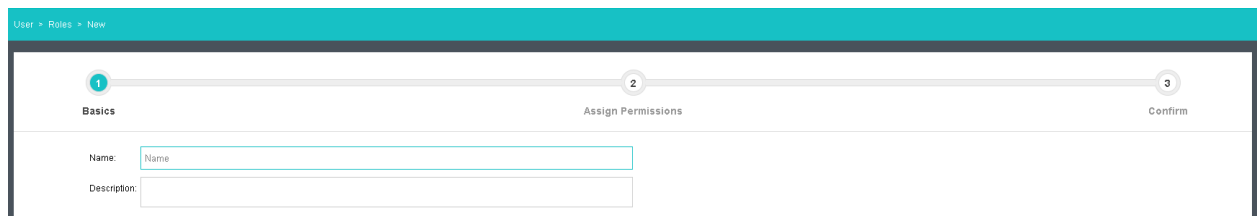
[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operations Center】 > 【Roles】** to enter the role management interface. By default, the system will create three roles, namely, super administrator, tenant and tenant user which can be viewed only instead of being edited, and then click **⊕New**;



Platform Administrators Tenants Tenant Users Other Users Roles				
⊕ New 🗑 Delete ↻ Refresh All types				
<input type="checkbox"/>	Name	Type	User	Description
<input type="checkbox"/>	SuperAdmin	Administrator	-	Default administrator role with all permissions related to platform management
<input type="checkbox"/>	Tenant	Tenant	-	Default tenant role with all tenant related permissions
<input type="checkbox"/>	Tenant User	Member	-	Default user role and actual user of VM, subordinated to a tenant

2. Enter the role name and description.



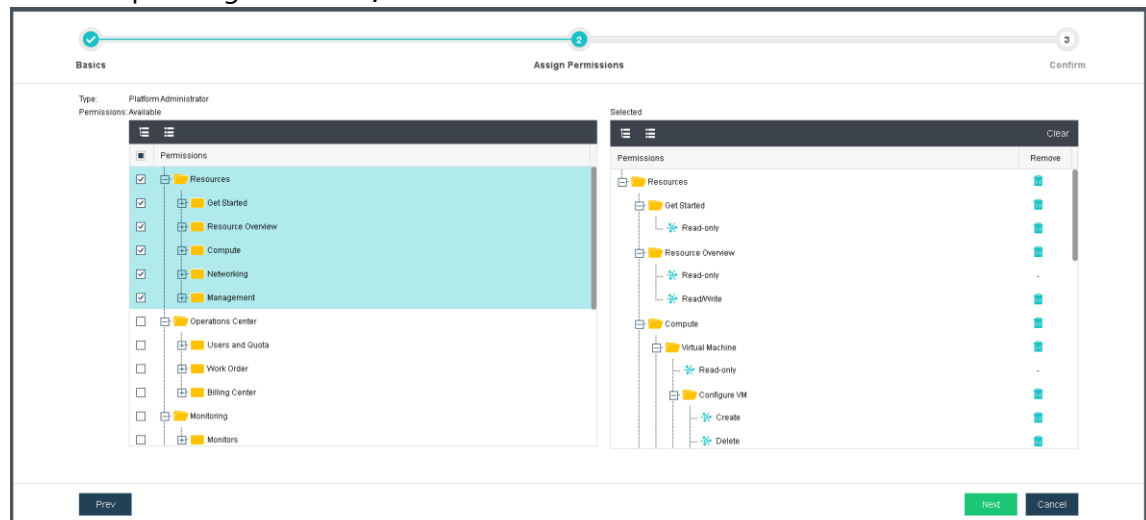
User > Roles > New

1 Basics 2 Assign Permissions 3 Confirm

Name:

Description:

3. Here you can assign specific resources to the role. It should be noted that the assignation is made by default according to the function module. After selecting the corresponding resources, click Next.



1 Basics 2 Assign Permissions 3 Confirm

Type: Platform Administrator

Permissions Available

- Permissions
 - Resources
 - Get Started
 - Resource Overview
 - Compute
 - Networking
 - Management
 - Operations Center
 - Users and Quota
 - Work Order
 - Billing Center
 - Monitoring
 - Monitors

Selected

- Permissions
 - Resources
 - Get Started
 - Read-only
 - Resource Overview
 - Read-only
 - ReadWrite
 - Compute
 - Virtual Machine
 - Read-only
 - Configure VM
 - Create
 - Delete

Prev Next Cancel

4. Finally confirm the information and click the OK.

- On the "Roles" tab, you can view, edit and delete the roles created, and you can also tick multiple roles for batch deletion.

Platform Administrators Tenants Tenant Users Other Users Roles					
+ New - Delete ↻ Refresh		All types		Name	
<input checked="" type="checkbox"/>	Name	Type	User	Description	Operation
<input type="checkbox"/>	Super Admin	Administrator	-	Default administrator role with all permissions related to platform management	View
<input type="checkbox"/>	Tenant	Tenant	-	Default tenant role with all tenant related permissions	View
<input type="checkbox"/>	Tenant User	Member	-	Default user role and actual user of VM, subordinated to a tenant	View
<input checked="" type="checkbox"/>	test	Administrator	admin	-	View Edit Delete

3.3.1.3 Tenant Management

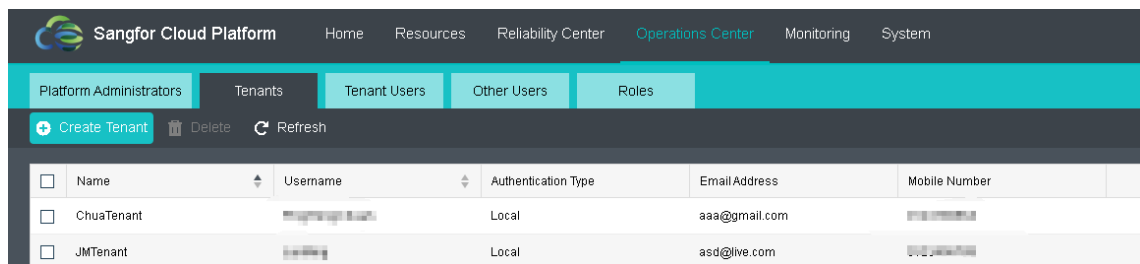
1. Create Tenant

[Function description]

The platform administrator can create one or more tenant. Tenant is the unit used by the SCP to allocate resources. As the secondary administrator of the platform, the tenant administrator is responsible for user management tasks in each area and is an essential part of the SCP platform O&M management. Sangfor can realize fine-grained resource management by associating tenant administrators with roles.

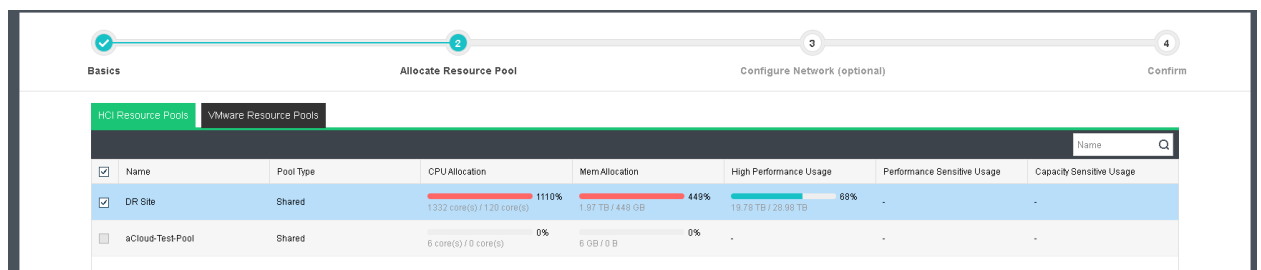
[Operating Steps]

- Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant】** and click "Create Tenant".



2. Enter the required information and click "Next".

3. Allocate resource pools and select the resource pool resources that this tenant can use. Resource pools are divided into shared and dedicated resource pools. Shared resource pools can be assigned to multiple tenants, and one tenant can be associated with multiple shared resource pools; dedicated resource pools can only be assigned to one tenant, and tenants can only be associated with one dedicated resource pool.



4. By default, the VPC network type is selected. To use the classic network, it is required to connect the network to either switch or edge.

5. Ensure the information is correct and click “Confirm & Set Quota”.

6. The tenant is created successfully.

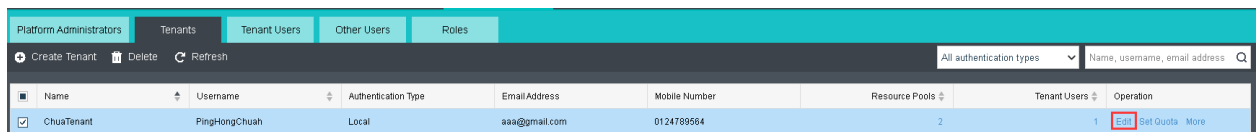
2. Edit Tenant

[Function description]

The platform administrator are able to edit the existing tenant.

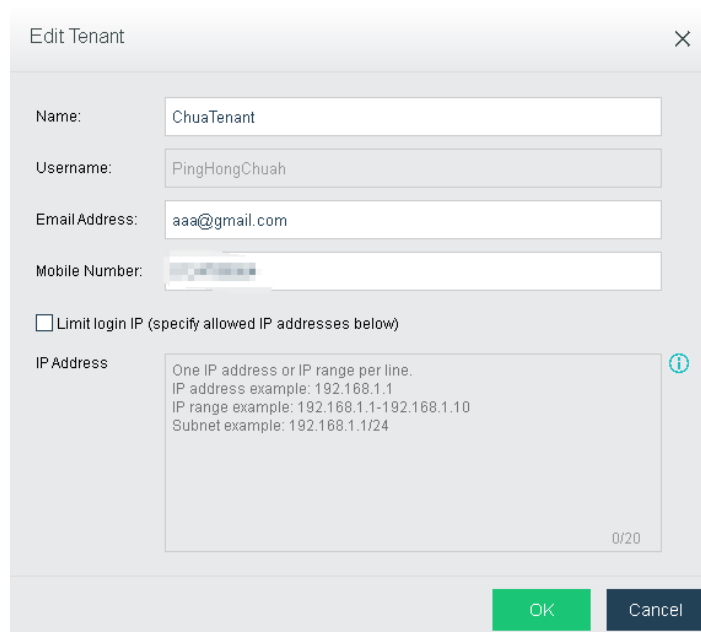
[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】 > 【Tenant】** and click "Edit".



	Name	Username	Authentication Type	Email Address	Mobile Number	Resource Pools	Tenant Users	Operation
<input checked="" type="checkbox"/>	ChuaTenant	PingHongChuah	Local	aaa@gmail.com	0124789564	2	1	Edit Set Quota More

2. It allow to edit the tenant name, email, and mobile number. Also able to limit the login IP address.



Edit Tenant

Name:

ChuaTenant

Username:

PingHongChuah

Email Address:

aaa@gmail.com

Mobile Number:

☐ Limit login IP (specify allowed IP addresses below)

IP Address

One IP address or IP range per line.
IP address example: 192.168.1.1
IP range example: 192.168.1.1-192.168.1.10
Subnet example: 192.168.1.1/24

0/20

OK

Cancel

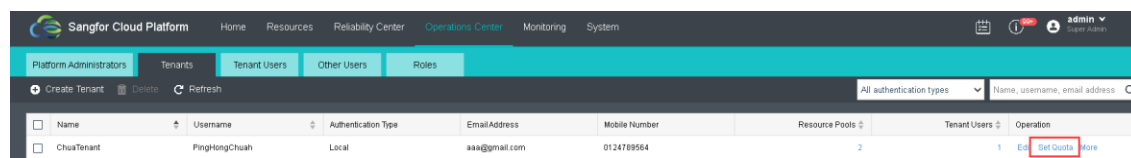
3. Set Quota

[Function description]

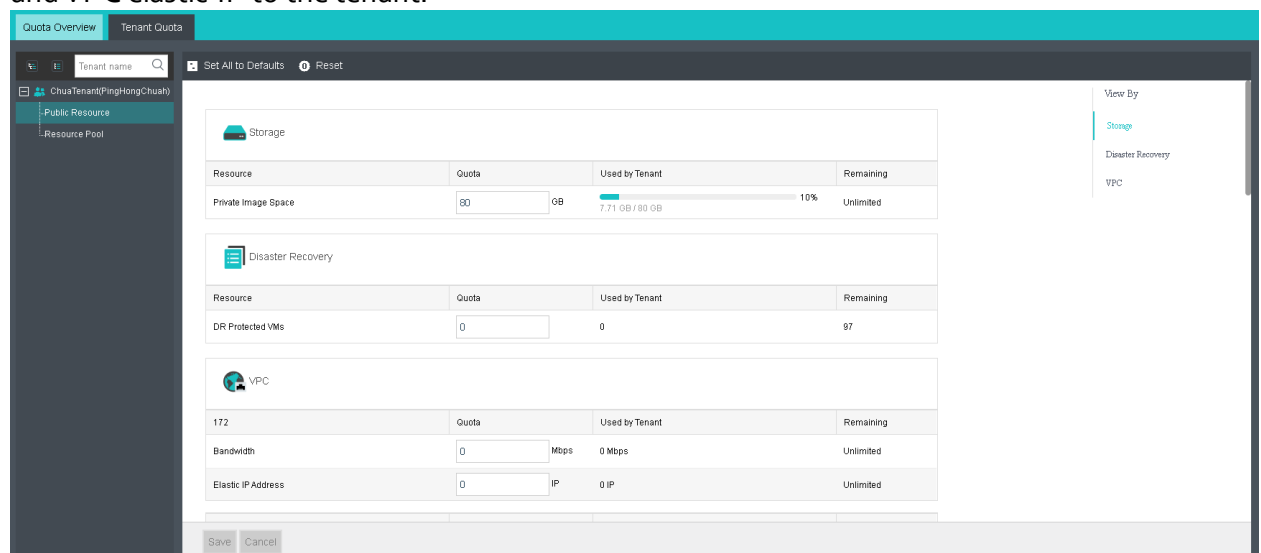
The platform administrator can set quotas for tenants. Quotas are subdivided into public resources and resource pool resource quotas. Resource pool quotas refer to quotas related to virtual devices running on resource pools such as computing, storage, and security devices; public resource quotas refer to resource quotas that are not related to resource pools, such as elastic IP and disaster recovery authorization.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant】** and click "Set Quota".



2. Assign the appropriate resources such as storage, disaster recovery authorization, and VPC elastic IP to the tenant.



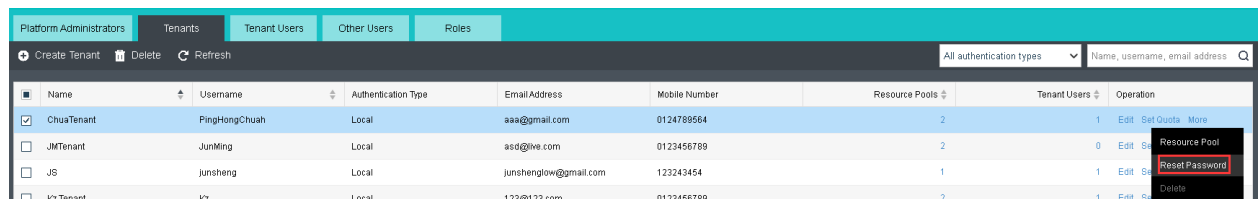
4. Reset Tenant Password

[Function description]

The platform administrator can reset the tenant password.

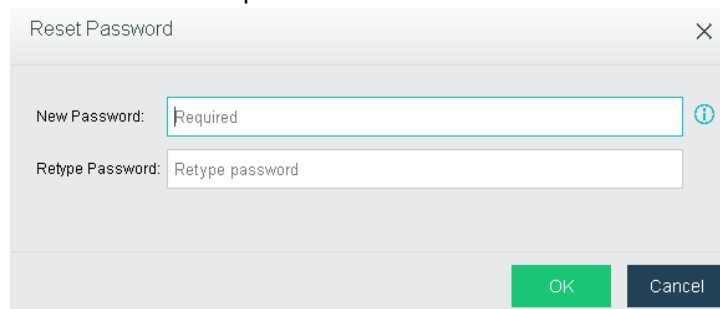
[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant】** and click "Reset password".



	Name	Username	Authentication Type	Email Address	Mobile Number	Resource Pools	Tenant Users	Operation
<input checked="" type="checkbox"/>	ChuaTenant	PingHongChuah	Local	aaa@gmail.com	0124789564	2	1	Edit Set Quota More
<input type="checkbox"/>	JMTenant	JunMing	Local	asd@live.com	0123456789	2	0	Edit Set Quota More
<input type="checkbox"/>	JS	Junsheng	Local	junshenglow@gmail.com	123243454	1	1	Edit Set Quota More
<input type="checkbox"/>	Kz Tenant	Kz	Local	123@123.com	0123456789	2	1	Edit Set Quota More

2. Enter the new password for the tenant.



Reset Password

New Password: Required

Retype Password: Retype password

OK Cancel

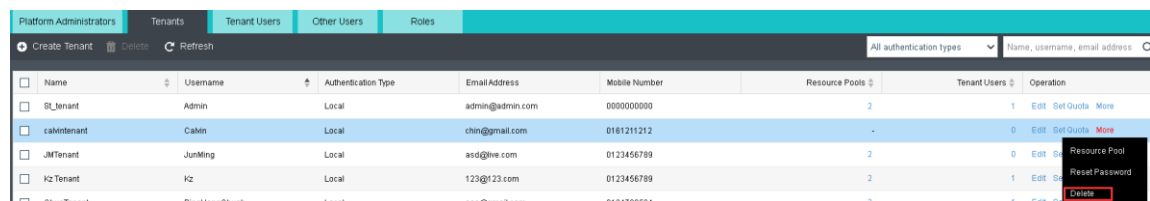
5. Delete Tenant

[Function description]

The platform administrator can delete the existing tenant.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant】** and click "Delete".




	Name	Username	Authentication Type	Email Address	Mobile Number	Resource Pools	Tenant Users	Operation
<input type="checkbox"/>	Bt_tenant	Admin	Local	admin@admin.com	0000000000	2	1	Edit Set Quota More
<input type="checkbox"/>	cakintenant	Cakin	Local	chin@gmail.com	0181211212	-	0	Edit Set Quota More
<input type="checkbox"/>	JMTenant	JunMing	Local	asd@live.com	0123456789	2	0	Edit Set Quota More
<input type="checkbox"/>	Kz Tenant	Kz	Local	123@123.com	0123456789	2	1	Edit Set Quota More
<input type="checkbox"/>	ChuaTenant	PingHongChuah	Local	aaa@gmail.com	0124789564	2	1	Edit Set Quota More

2. Enter the admin password and click "Ok". Tenant will be deleted.

Confirm

×



Are you sure that you want to delete the selected tenant(s)?

Before deletion, make sure the following has been done.
VMs, backups and NFV resources (including related resources in the Recycle Bin) have been deleted permanently.
Images, shared bandwidth, corporate leased line, EIPs and tenant users have been deleted.
Once deleted, resources will be deallocated to SCP.

Enter password of **admin** to confirm this operation

⌵

Password

OK

Cancel

3.3.1.4 Tenant User Management

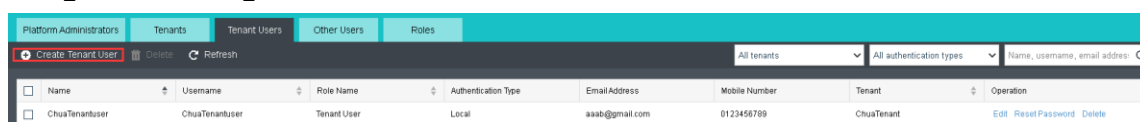
1. Create Tenant User

[Function description]

The platform administrator can create a tenant user account and associate the tenant user to a tenant.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】 > 【Tenant User】** and click "Create Tenant User".



2. Enter the required information such as name, username, email, and password. Select the related tenant and role.

The 'Create Tenant User' dialog box contains the following fields and values:

- Name: Yong_son
- Tenant: yong (selected from a dropdown)
- Role: Tenant User (selected from a dropdown)
- Username: yongson
- Email Address: yongson@gmail.com
- Mobile Number: 011111111111
- Password: [masked]
- Retype Password: [masked]

A yellow warning message is displayed below the Email Address field: "Please input a valid e-mail address for logging in and retrieving password if necessary." The dialog has 'OK' and 'Cancel' buttons at the bottom right.

3. The new tenant user is created successfully.

Platform Administrators								
Tenants		Tenant Users		Other Users		Roles		
+ Create Tenant User					🗑 Delete	↻ Refresh		
					All tenants	All authentication types	Name, username, email address: <input type="text"/>	
<input type="checkbox"/>	Name	Username	Role Name	Authentication Type	Email Address	Mobile Number	Tenant	Operation
<input type="checkbox"/>	ChuaTenantuser	ChuaTenantuser	Tenant User	Local	aaab@gmail.com	0123456789	ChuaTenant	Edit Reset Password Delete
<input type="checkbox"/>	St_user	user	Tenant User	Local	user@user.com	0000000000	St_tenant	Edit Reset Password Delete
<input type="checkbox"/>	TenantUserTestLo	TenantUserTestLo	Tenant User	Local	jinouanlee@gmail.com	0192086631	TenantTestLo	Edit Reset Password Delete
<input type="checkbox"/>	Yong_son	yongson	Tenant User	Local	yongson@gmail.com	011111111111	yong	Edit Reset Password Delete

2. Edit Tenant User

[Function description]

The platform administrator are able to edit the existing tenant user.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant User】** and click "Edit".

Platform Administrators								
Tenant Users								
Other Users								
Roles								
Create Tenant User					Delete		Refresh	
					All tenants		All authentication types	
					Name, username, email address: <input type="text"/>			
<input checked="" type="checkbox"/>	Name	Username	Role Name	Authentication Type	Email Address	Mobile Number	Tenant	Operation
<input checked="" type="checkbox"/>	ChuaTenantuser	ChuaTenantuser	Tenant User	Local	aaab@gmail.com	0123456789	ChuaTenant	Edit Reset Password Delete
<input type="checkbox"/>	St_user	user	Tenant User	Local	user@user.com	0000000000	St_tenant	Edit Reset Password Delete

2. It allow to edit the tenant user name, email, and mobile number. Also able to limit the login IP address.

×

Edit User Account

Name:

ChuaTenantuser

Tenant:

ChuaTenant

Role:

Tenant User

Username:

ChuaTenantuser

Email Address:

aaab@gmail.com

Mobile Number:

0123456789

☐ Limit login IP (specify allowed IP addresses below)

IP Address

One IP address or IP range per line.

IP address example: 192.168.1.1

IP range example: 192.168.1.1-192.168.1.10

Subnet example: 192.168.1.1/24

0/20

OK

Cancel

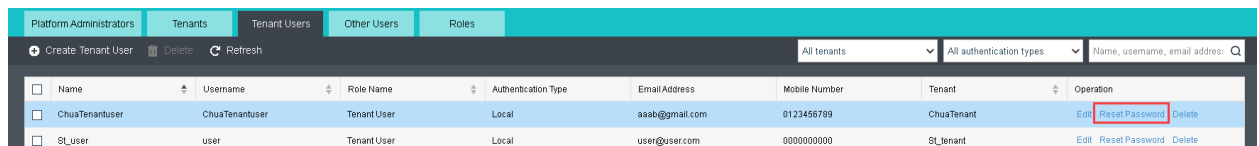
3. Reset Tenant Password

[Function description]

The platform administrator can reset the tenant user password.

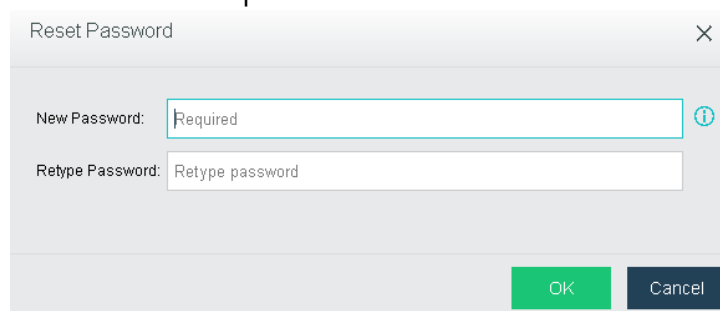
[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant User】** and click "Reset password".



Platform Administrators Tenants Tenant Users Other Users Roles								
Create Tenant User Delete Refresh			All tenants		All authentication types		Name, username, email address: Q	
<input type="checkbox"/>	Name	Username	Role Name	Authentication Type	Email Address	Mobile Number	Tenant	Operation
<input type="checkbox"/>	ChuaTenantuser	ChuaTenantuser	Tenant User	Local	asab@gmail.com	0123456789	ChuaTenant	Edit Reset Password Delete
<input type="checkbox"/>	SLuser	user	Tenant User	Local	user@user.com	0000000000	SLtenant	Edit Reset Password Delete

2. Enter the new password for the tenant user.



Reset Password

New Password: Required ⓘ

Retype Password: Retype password

OK Cancel

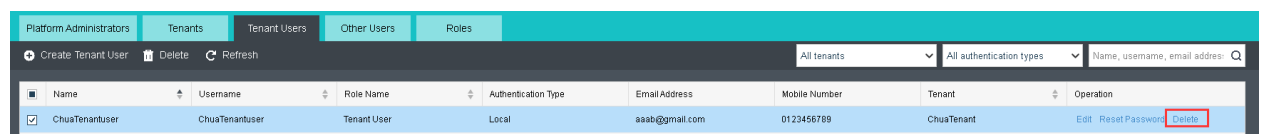
4. Delete Tenant User

[Function description]

The platform administrator can delete the existing tenant user.

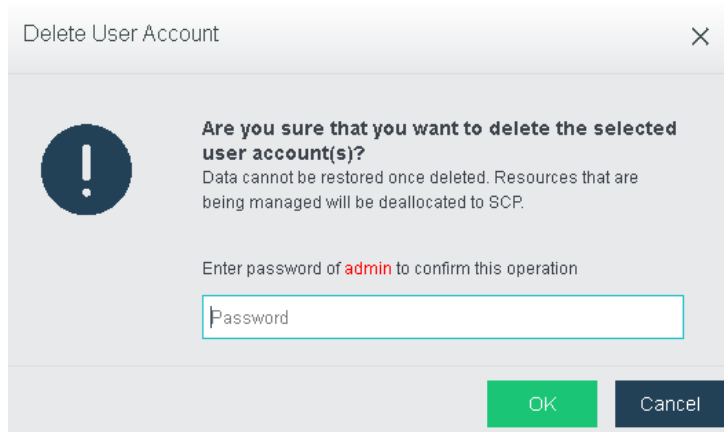
[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Tenant User】** and click "Delete".



Platform Administrators Tenants Tenant Users Other Users Roles								
Create Tenant User Delete Refresh			All tenants		All authentication types		Name, username, email address: Q	
<input type="checkbox"/>	Name	Username	Role Name	Authentication Type	Email Address	Mobile Number	Tenant	Operation
<input checked="" type="checkbox"/>	ChuaTenantuser	ChuaTenantuser	Tenant User	Local	asab@gmail.com	0123456789	ChuaTenant	Edit Reset Password Delete

2. Enter the admin password and click "Ok". Tenant user will be deleted.



3.3.2 Quota

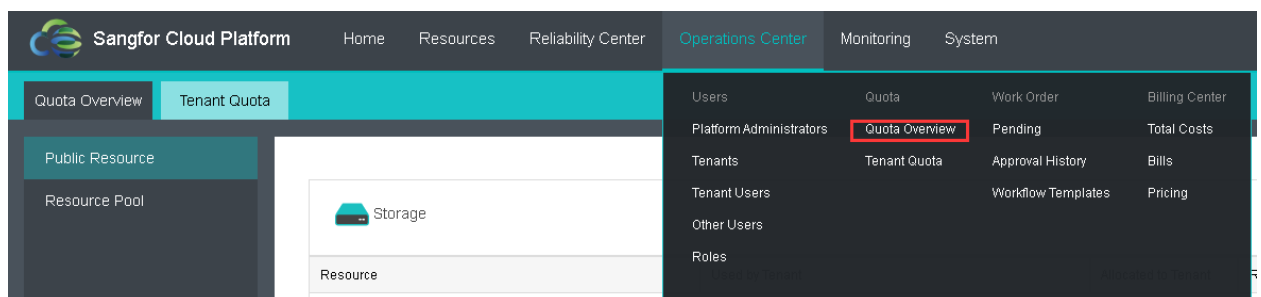
3.3.2.1 Quota Overview

[Function description]

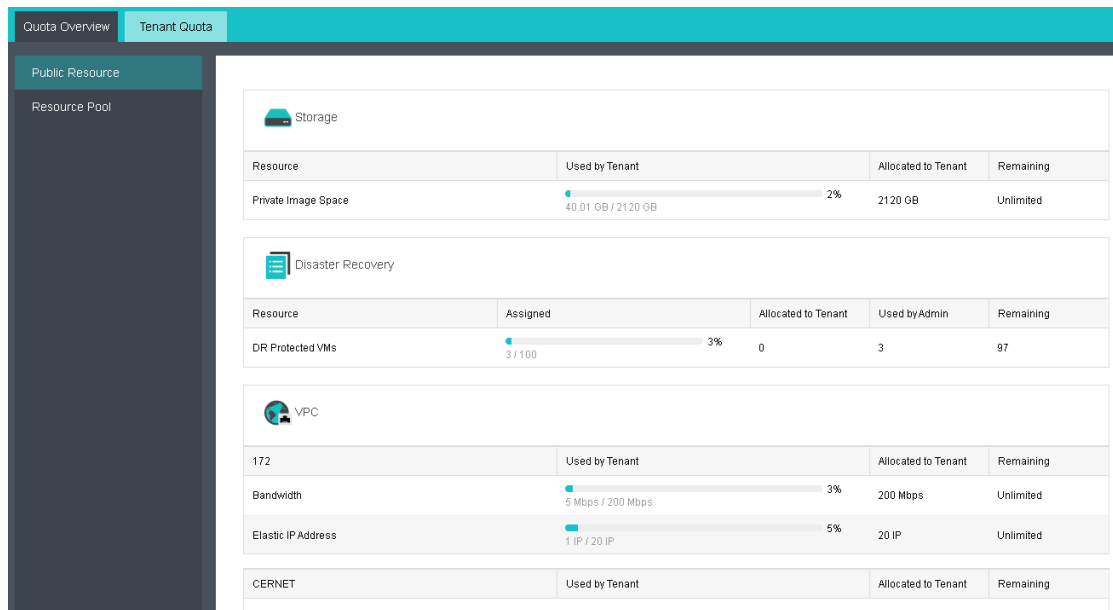
The platform administrator can view the quota overview and understand the allocation of platform basic resources and NFV resources.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】** > **【Quota Overview】**.



2. You can view the current allocation of all resources include public resources and resources pool.



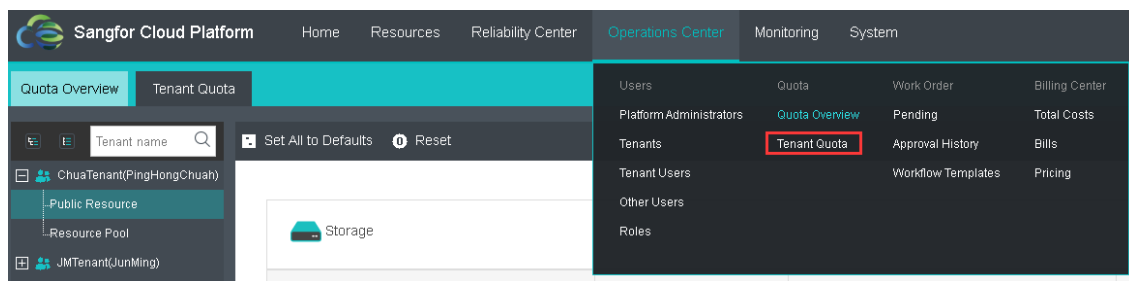
3.3.2.2 Tenant Quota

[Function description]

The platform administrator can edit and manage the existing tenant resources quota.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】 > 【Tenant Quota】**.



2. You can view all the tenant resources and assign the appropriate resources quota to every tenant.

Quota Overview

Tenant Quota

Tenant name

Set All to Defaults

Reset

ChuaTenant(PingHongChuah)

Public Resource

Resource Pool

JMTenant(JunMing)

JS(junsheng)

kz Tenant(kz)

MK(mk)

St_tenant(Admin)

TenanttestJo(TenanttestJo)

calvintenant(Calvin)

tttest(tttest)

yong(yong)

yuan(testingyuan)

Storage

Resource	Quota	Used by Tenant	Remaining
Private Image Space	80 GB	7.71 GB / 80 GB 10%	Unlimited

Disaster Recovery

Resource	Quota	Used by Tenant	Remaining
DR Protected VMs	0	0	97

VPC

172	Quota	Used by Tenant	Remaining
Bandwidth	0 Mbps	0 Mbps	Unlimited
Elastic IP Address	0 IP	0 IP	Unlimited

3.3.3 WorkOrder

3.3.3.1 Workflow Templates

[Function description]

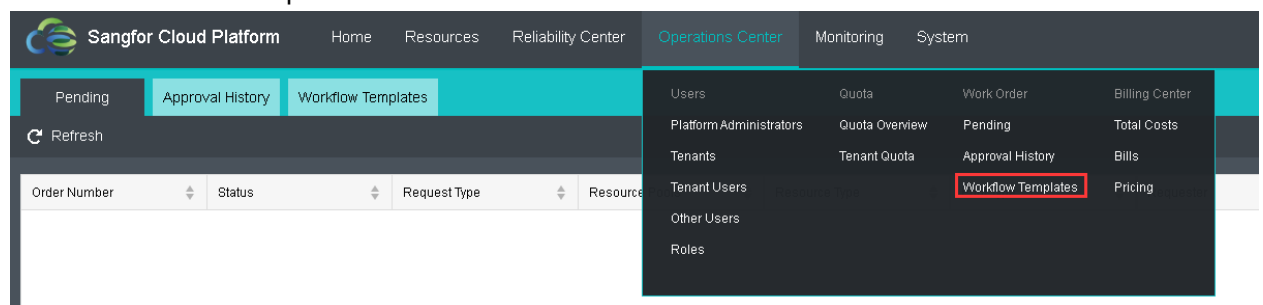
When tenants or tenant users apply requests for more quota, virtual machines, or configuration changes of the virtual machines, they need to apply through a work order, and the corresponding approval administrator can approve the work order. The admin administrator can set the template of the work order according to the actual situation.

[Prerequisites]

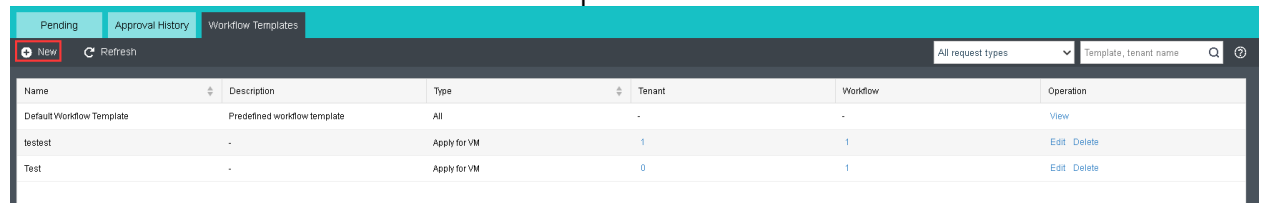
When a custom workflow template is not created, the platform default workflow templates will be used. After the custom workflow template, the custom workflow template will be used, which has a higher priority than the default workflow templates.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】 > 【Workflow Template】**.



2. Click "New" to create new workflow templates.



3. Enter the template name. Select the request type and associate it to the tenant, then click Next;

Work Order > Workflow Templates > New

1 Basics 2 Workflow 3 Confirm

Name: Yong

Description: +

Request Type: Apply for VM

Tenant:

Available	Workflow Template
<input type="checkbox"/> User Name	
<input type="checkbox"/> K2 Tenant	Default workflow for VM creation request
<input checked="" type="checkbox"/> yong	Default workflow for VM creation request
<input type="checkbox"/> yuan	Default workflow for VM creation request
<input type="checkbox"/> Mik	Default workflow for VM creation request
<input type="checkbox"/> JS	Default workflow for VM creation request
<input type="checkbox"/> ChuaTenant	Default workflow for VM creation request

Selected

User Name	Operation
yong	+

Next Cancel

- Select the approver. If you need multi-level approval, click < ⊕ > to add an approver. You can use " ↓ ↑ " to adjust the position of each level of the approver. Up to 5 approvers can be selected at the same time. After any approver approve the request, the work order is approved.

Work Order > Workflow Templates > New

1 Basics 2 Workflow 3 Confirm

Apply for VM

Submit Request
Member applies for VM

Approver 1 (Maximum of 5 approvers)
User: admin

Approver 2 (Maximum of 5 approvers)
User: test

Prev Next Cancel

- Ensure the flow is correct and click OK;

Progress bar: Basics (active), Workflow, Confirm

Fields:

- Name: Yong
- Description: -
- Request Type: Apply for VM
- Tenant: yong

Workflow diagram:

- Submit Request: Member applies for VM
- Approver 1: [User] admin (Super Admin)
- Finish: End of workflow

Buttons: Prev, OK, Cancel

6. The new workflow has been created and associated with the specific tenant.

Pending Approval History Workflow Templates						
New Refresh		All request types Template, tenant				
Name	Description	Type	Tenant	Workflow	Operation	
Default Workflow Template	Predefined workflow template	All	-	-	View	
testtest	-	Apply for VM	1	1	Edit Delete	
Yong	-	Apply for VM	1	1	Edit Delete	

3.3.3.2 Create Work Order

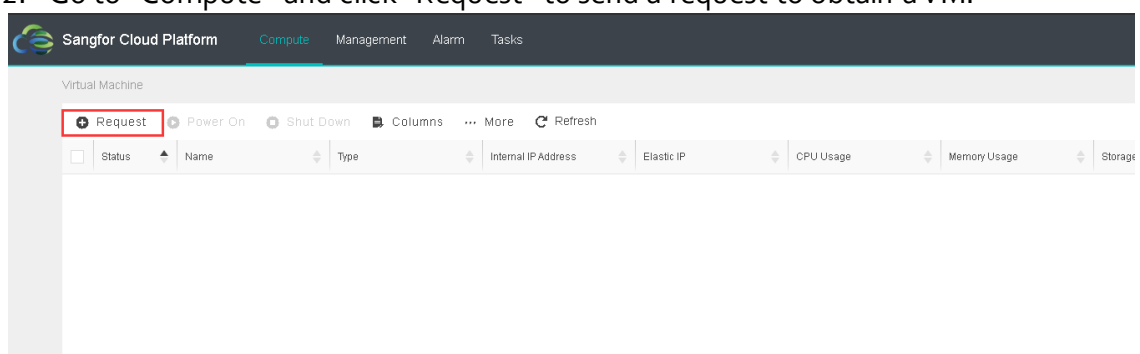
1.Request for VM

[Function description]

When a tenant user

[Operating Steps]

1. Log in to the SCP platform tenant portal by using https://SCP IP address without port 4430.
2. Go to "Compute" and click "Request" to send a request to obtain a VM.



3. Select the resource pool to which the cloud virtual machine belongs and the appropriate image, configure the computing, storage, and networking information. Enter the basic information of the cloud virtual machine, the reason for the application, and click <OK> to complete the application.





Virtual Machine > Apply for VM

*Resource Pools

DR Site

*Image

All OSes All types Image name Q

	Server2008Template_DR_Site_8e1566b1 OS: Windows Server 2008 64 bit	Image Type: Built-in
	FreeNAS-11.2-U6 OS: 64 bit OS	Image Type: ISO
	Win7 Final OS: Microsoft Windows 7 64 bit	Image Type: Built-in
	centos-live OS: CentOS	Image Type: ISO

VM Count

* Number of VMs: 1

Compute

OK Cancel

4. Click "Ok" and the request application will be created.

Sangfor Cloud Platform Compute Management Alarm Tasks Work Order 1 yongson

Work Order

Refresh Order Number Status Current Processor Request Type Time Requested Operation

2020072708042	Pending	yong (Tenant)	Apply for VM	2020-07-27 10:19:07	View Cancel
---------------	---------	---------------	--------------	---------------------	---

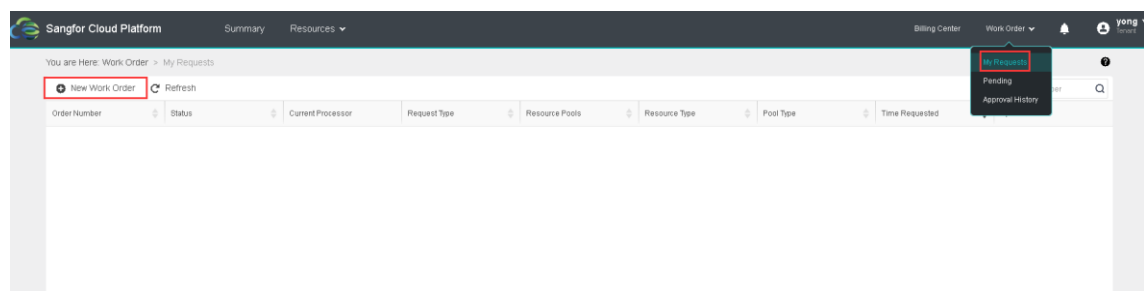
2.Request for Quota

[Function description]

When a tenant admin requests to have more quota for resources, it is required to send a work order.

[Operating Steps]

1. Log in to the SCP platform tenant portal by using https://SCP IP address without port 4430 using tenant admin account.
2. Go to "Work Order – My Request", select "+ New Work Order".



3. Select the request type, and the detail requested resources information.

You are Here: Work Order > My Requests > New Work Order

Basics

Request Type: Apply for resource quota

Requested

Resource Type: ☒ Public Resource ☐ Resource Pool

Please select the requested resource type first.

Public Resource

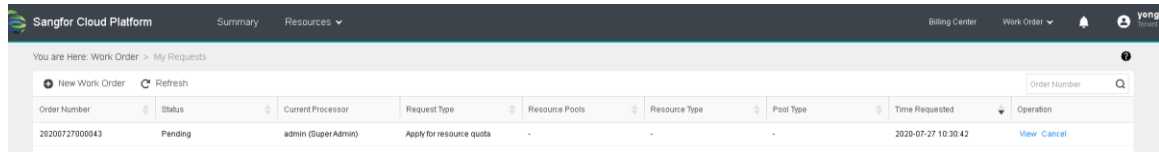
Storage: Private Image Space Networking: Elastic IP (support multiple) Bandwidth (support multiple) Disaster Recovery: DR Protected VMs

Selected:

Quota Type	Resource Type	Item	Resource Requested	New Quota	Operation
Public Resource	Networking	Bandwidth	Goukap Line 100 Mbps	200 Mbps	Delete

Apply Now Cancel

4. Click “Ok” and the request application will be created.



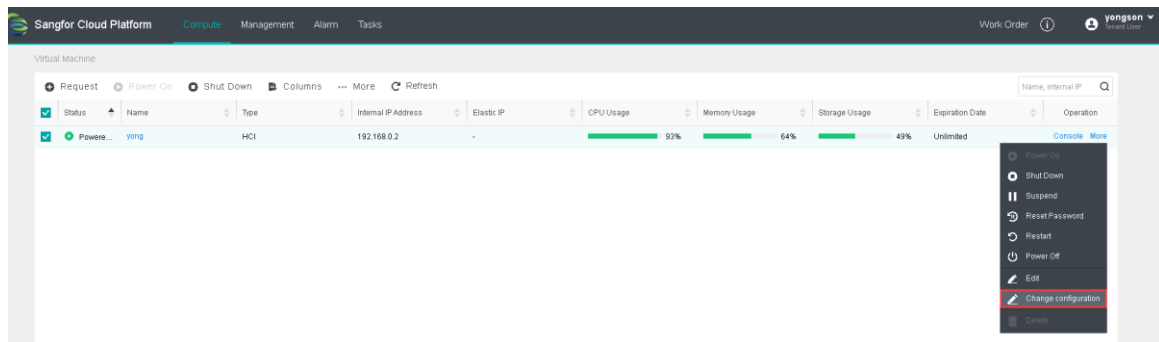
3. Changes of VM configuration

[Function description]

When a tenant user want to make changes of the existing VM configuration, it required to send a request work order.

[Operating Steps]

1. Log in to the SCP platform tenant portal by using https://SCP IP address without port 4430 using tenant user account.
2. Select the VM, and click on “Change configuration”.



3. Select the new specification for the VM and click “Ok”.

Virtual Machine > Change configuration

Compute

*CPU: 1 core(s) 2 core(s) 4 core(s) 8 core(s) 16 core(s) 32 core(s) 64 core(s) 128 core(s) 256 core(s) 512 core(s) 1024 core(s)

*Memory: 1 GB 2 GB 4 GB 8 GB 16 GB 32 GB 64 GB 128 GB 256 GB 512 GB 1024 GB

Storage

*Storage Tag: High Performance

*Disk1: 80 GB

+ New disk (14 more allowed)

Networking

Network Type: VPC

VPC: VPC

*NIC1: Subnet 1 (192.168.0.0/24)

+ New (9 more allowed)

*Elastic IP: Skip Specify ⓘ

OK Cancel

4. New work order request for VM configuration changes will be created.

Sangfor Cloud Platform Compute Management Alarm Tasks Work Order ⓘ yongson

Work Order

Refresh Order Number Status Current Processor Request Type Time Requested Operation

20200727000045	Pending	ying (Tenant)	Change VM configurations	2020-07-27 10:51:37	View Cancel
----------------	---------	---------------	--------------------------	---------------------	---

3.3.3.3 Approve/Reject Work Order

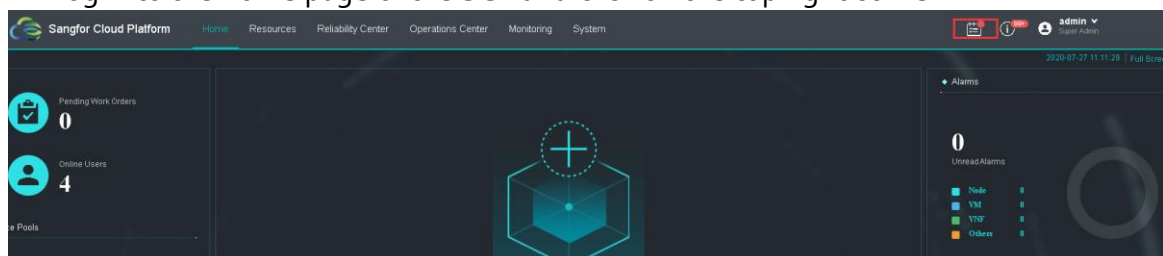
1. Platform administrator

[Function description]

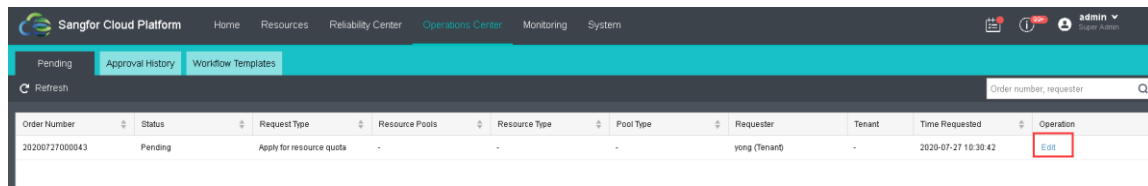
If the platform administrator are added to the workflow process as the approver, they can review the application to approve and reject the work order, and modify the cloud virtual machine configuration applied by the tenant user.

[Operating Steps]

1. Log in to the home page of the SCP and click on the top right corner “”.



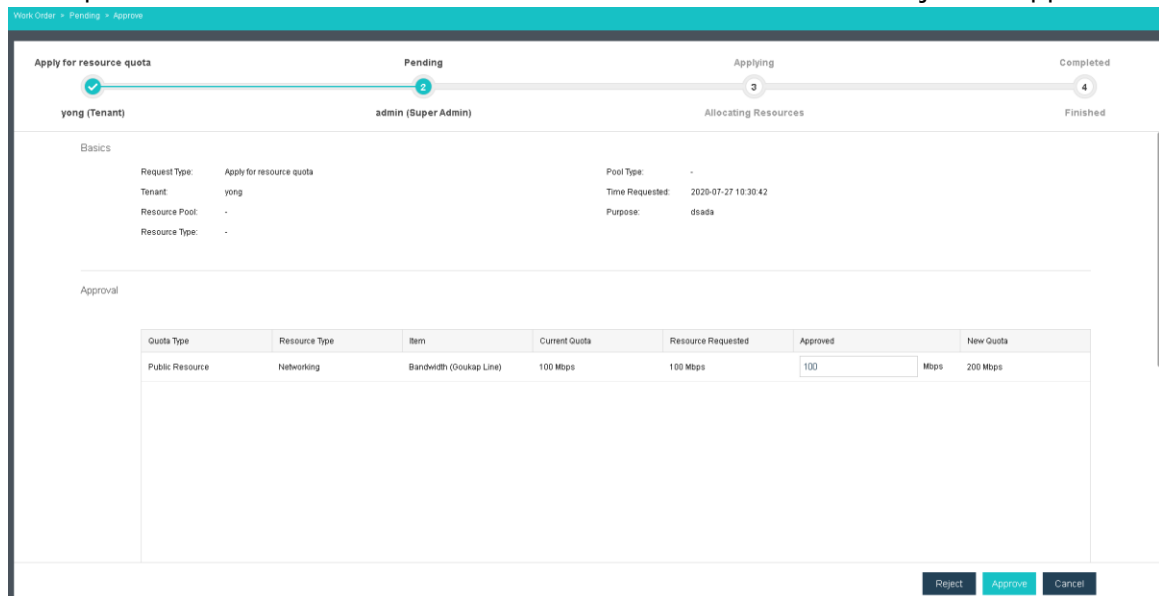
2. It will show all pending work order, click “Edit”;



The screenshot shows the 'Pending' tab in the Sangfor Cloud Platform. A table lists work orders. The first row has the following data:

Order Number	Status	Request Type	Resource Pools	Resource Type	Pool Type	Requester	Tenant	Time Requested	Operation
20200727000043	Pending	Apply for resource quota	-	-	-	yong (Tenant)	-	2020-07-27 10:30:42	Edit

3. You can view the resources requested by the tenant admin. Able to modify their requested resources based on the actual need. Then click either Reject or Approve.



The screenshot shows the 'Approve' step of a workflow. At the top, a progress bar indicates the stages: 'Apply for resource quota' (completed), 'Pending' (current step), 'Applying', and 'Completed'. Below the progress bar, the request details are shown:

- Request Type: Apply for resource quota
- Tenant: yong
- Resource Pool: -
- Resource Type: -
- Pool Type: -
- Time Requested: 2020-07-27 10:30:42
- Purpose: dsada

Below the details is an 'Approval' section with a table:

Quota Type	Resource Type	Item	Current Quota	Resource Requested	Approved	New Quota
Public Resource	Networking	Bandwidth (Goukap Line)	100 Mbps	100 Mbps	<input type="text" value="100"/>	Mbps 200 Mbps

At the bottom right, there are three buttons: 'Reject', 'Approve', and 'Cancel'.

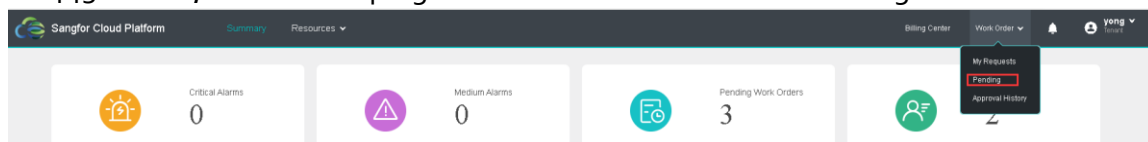
2.Tenant administrator

[Function description]

If the tenant admin account are added to the workflow process as the approver, they can review the application to approve and reject the work order, and modify the cloud virtual machine configuration applied by the tenant user.

[Operating Steps]

1. Log in to the SCP platform tenant portal by using <https://SCP IP address without port 4430>. Then, select the top right corner "Work order" and "Pending".



2. All the work order application send by tenant user will be showed. Click "Edit";

Sangfor Cloud Platform

Summary

Resources

Billing Center

Work Order

yong

You are Here: Work Order > Pending

Refresh

Order number, requester

Order Number	Status	Request Type	Resource Pools	Resource Type	Pool Type	Requester	Time Requested	Operation
2020072700042	Pending	Apply for VM	DR Site	HCI	Shared	Yong_son (Tenant User)	2020-07-27 10:19:07	Edit
2020072700044	Pending	Change VM configurations	DR Site	HCI	Shared	Yong_son (Tenant User)	2020-07-27 10:36:56	Edit

- Verify tenant user request application for VM resources and make changes based on actual needs. Then, click "Approve";

You are Here: Work Order > Pending > Approve

Apply for VM

Pending

Pending

Applying

Completed

Yong_son (Tenant User)

yong (Tenant)

admin (Super Admin)

Allocating Resources

Finished

Basics

Request Type: Apply for VM

Pool Type: Shared

Tenant: yong

Time Requested: 2020-07-27 10:19:07

Resource Pool: DR Site

Purpose: 321

Resource Type: HCI

Requested

Name: yong

CPU: 1 core(s)

Network Type: VPC

Image: win7_professional

Memory: 1 GB

Subnet Name: VPC

OS: Microsoft Windows 7 64 bit

Datatore: Storage Tag: High Performance

NIC: NIC 1: Subnet

Subnet 1 (1...

Disk1: 80 GB

Elastic IP: Skip

Expiration Date: Unlimited

Number of VMs: 1

Approval

VMs: 1

CPU: 1 core(s)

Memory: 1 GB

Reject

Approve

Cancel

- New virtual machine will be created successfully.

Virtual Machine										
Request Power On Shut Down Columns More Refresh										
Status	Name	Type	Internal IP Address	Elastic IP	CPU Usage	Memory Usage	Storage Usage	Expiration Date	Operation	
<input type="checkbox"/>	Power... yong	HCI	192.168.0.2	-	100%	23%	49%	Unlimited	Console	More
<input type="checkbox"/>	Power... yong	HCI	192.168.0.3	-	-	-	-	Unlimited	Console	More

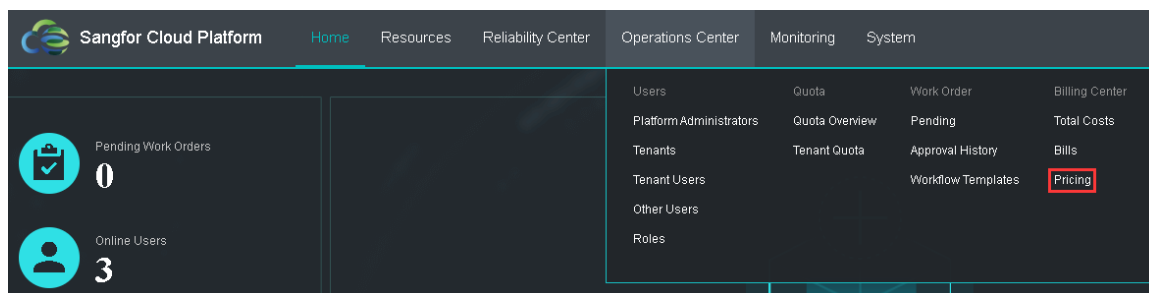
3.3.3 Billing Center

[Function Description]

Administrators can independently control and set the unit prices of platform resources. The SCP counts the tenant resource usage every 10 minutes, calculates the billing based on usage and price, and updates the resource usage billing every 1 hour on the interface. The IT department's services are quantified through statistics on resource usage.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Operation Center】 > 【Pricing】**.



2. Fill in the unit price and amount you need to set, and click **Save**.

Total Costs	Bills	Pricing
Basic Pricing		
Public Resource		
Resource Pool		
Individual Pricing		
Recommended Price Reset		
Resource	Description	Unit Price
172	Elastic IP	Per EIP
	Dedicated Bandwidth	Per bandwidth
	Shared Bandwidth	Per bandwidth
Goukap Line	Elastic IP	Per EIP
	Dedicated Bandwidth	Per bandwidth
	Shared Bandwidth	Per bandwidth
Private VM Images	Private image repository	
Disaster Recovery	VM for DR	

3. Select **【Operations Center】 > 【Billing】** to set the time period for statistics. You can view the cost summary of different organizations in the selected period;

Total Costs

Bills

Pricing

Time Range:

2020-07-26

-

2020-07-27

Last 30 days

Last 90 days

Last 6 months

Last year

Collapse

Tenant:

yong(yong)

Resource Pool:

All

Search

Export

Total 154.6667 USD

Resource	Name	Description	Resource Pool	Unit Price	Service Duration	Cost	Service Period
Virtual Machine	yong	Powered on, 1 Core(s), 1 GB High Perf...	DR Site	84.0000 USD/Mhr	1 hour(s) 30 min(s)	126.0000 USD	2020-07-27 10:25:14 to date
Virtual Machine	yong	Powered on, 1 Core(s), 2 GB High Perf...	DR Site	66.0000 USD/Mhr	20 min(s)	28.6667 USD	2020-07-27 11:35:14 to date

4. Select **【Operations Center】** > **【All Bills】** to set the query time period. You can view all bills of different organizations in the current period, and report export (as excel files) is supported.

Total Costs Bills Pricing	
Export	Time: Last 30 days Last 90 days Last 6 months Last year 2020-07-01 - 2020-07-27 Select tenant
Tenant	Cost
test@test	343,937.5891 USD
k2_Tenant(k2)	128,479.5778 USD
ChuaTenant(FingHongChua)	62,331.7579 USD
St_Tenant(Admin)	39,434.2387 USD
TenantTestLuo(TenantTestLuo)	16,537.0114 USD
yong(yong)	154.6667 USD
Mhr(mhr)	0.0000 USD
testing(testing)	0.0000 USD

Export

?

Are you sure that you want to export all the filtered entries?

File is being generated and will be exported to the local disk.

OK

Cancel

3.4 Monitoring Center

Sangfor SCP cloud platform has a complete monitoring function and alarm mechanism: the monitoring overview can comprehensively monitor three types of objects: virtual machines, physical machines, and elastic IP. Sangfor monitoring center aMC can perform monitoring on virtual machines, services, databases, etc. While monitoring, you can view platform alarm information through the alarm log and customize alarm settings

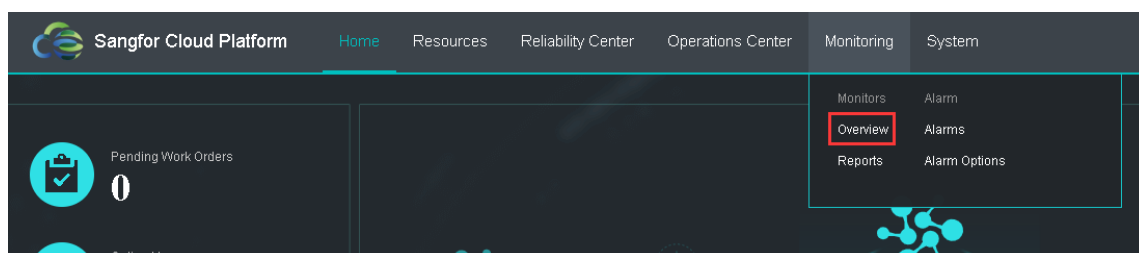
3.4.1.1 Monitor Overview

[Function Description]

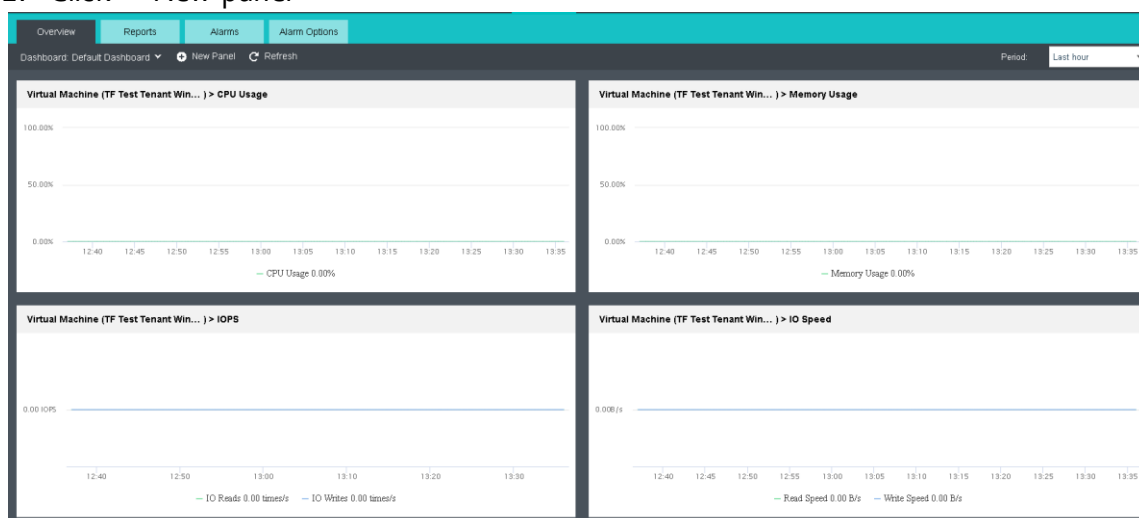
Sangfor SCP cloud platform can monitor cloud virtual machines, physical hosts and elastic IP. By adding monitoring panel, the monitoring information can be displayed in the form of charts.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【 Monitoring 】 > 【 Overview 】**.



2. Click "+ New panel"



3. Select the virtual machines and related item that you wish to show in dashboard.

New Panel

Object Type: Virtual Machine

Available

Group

Name

Virtual Machine

DR Site

ChuaTenant

JMTenant

JS

Kz Tenant

MK

St_tenant

TenanttestUo

Name

watchguard_(2019-08-14_14-41-52)

Win_7_EDR0001

Win7-TF0001

TeohPC

asd

BRANCH_WANO

Selected (1)

Clear

Name	Group	Operation
Win7-TF0001	Default Gro...	Remove

Items:

☒ CPU Usage

☒ Memory Usage

☐ IOPS

☐ IO Speed

☐ Throughput

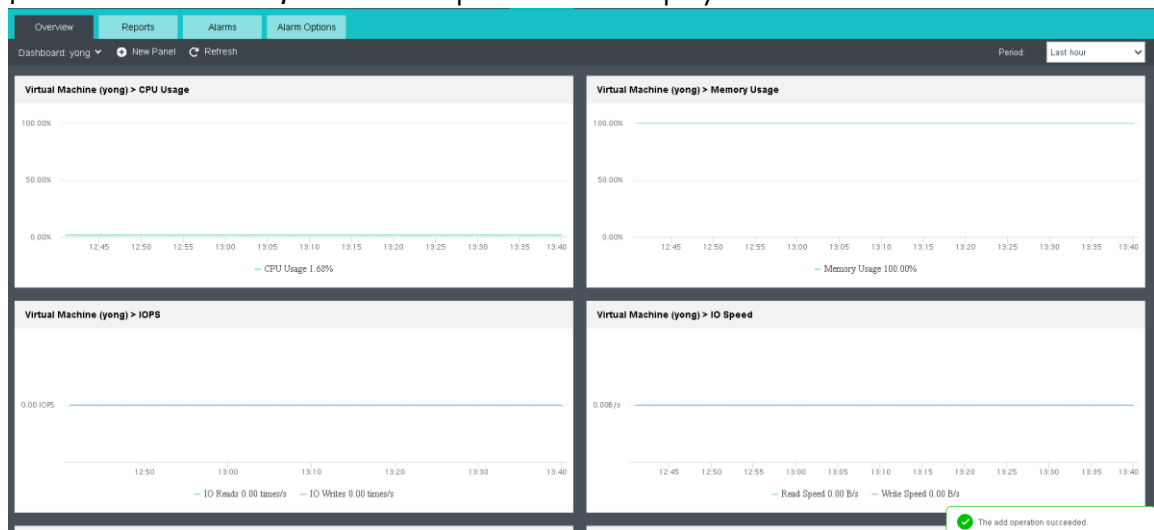
☒ Throughput (pps)

☒ Disk Usage

OK

Cancel

4. After the creation, the VM info panel will be displayed.



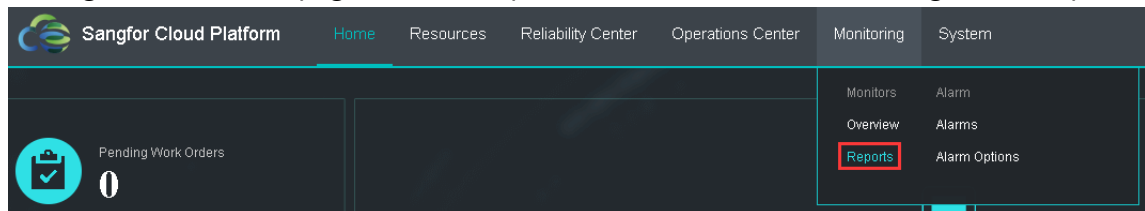
3.4.1.2 Monitor Report

[Function Description]

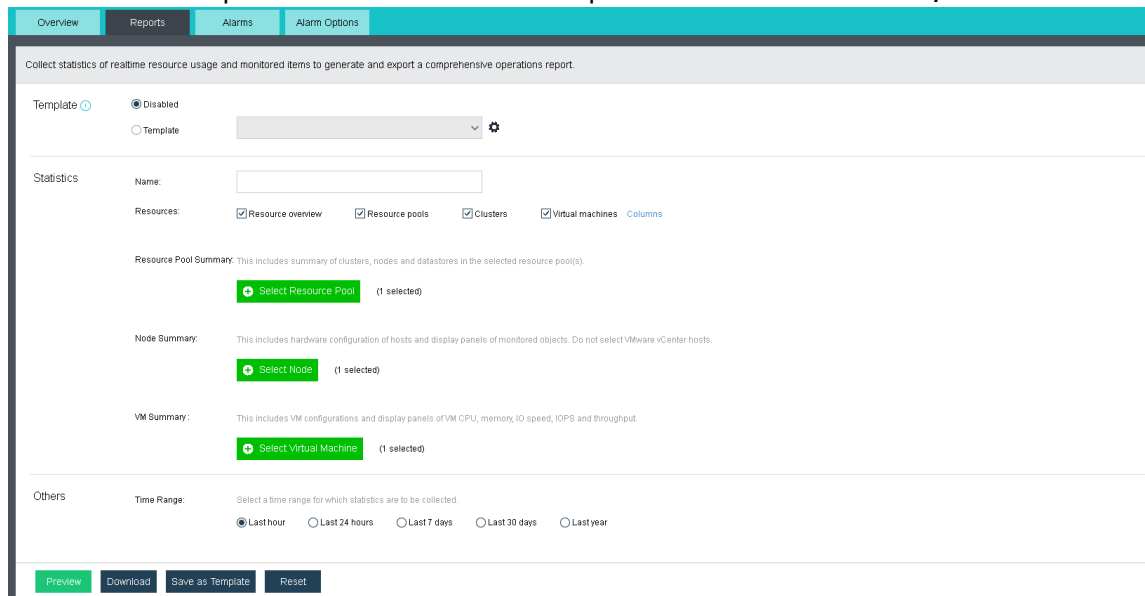
Sangfor SCP cloud platform can generate the report for statistic purpose based on resource overview, resource pools, clusters, and virtual machine

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Monitoring】 > 【Report】**.



2. Select the required information for the report and click "Download";



3. Now, the report has been generated.



March Report

Time Range: 2020-07-27 12:59 to 2020-07-27 13:59



3.4.2 Alarms

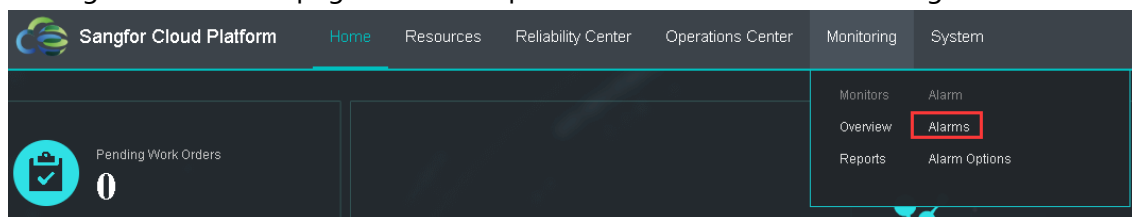
3.4.2.1 Alarms

[Function Description]

Sangfor SCP cloud platform will monitor the platform and cloud virtual machine in real time according to the alarm option, and all generated alarms will be recorded. Administrators can view the latest alarms or historical alarms according to their needs.

[Operating Steps]

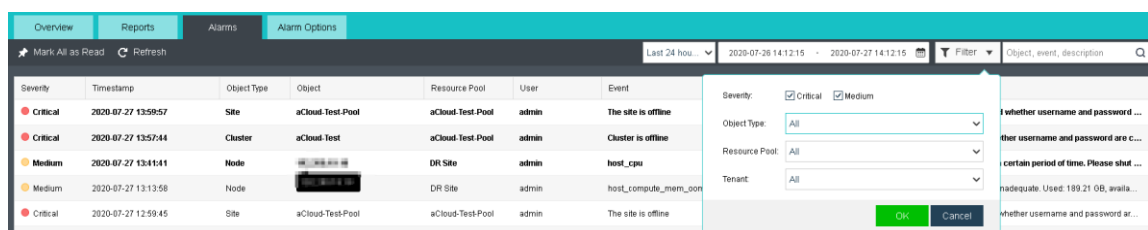
1. Log in to the home page of the SCP platform and select **【Monitoring】 > 【Alarms】**.



2. All the alarm and historical alarm will be displayed.

Severity	Timestamp	Object Type	Object	Resource Pool	User	Event	Description
Critical	2020-07-27 13:59:57	Site	aCloud-Test-Pool	aCloud-Test-Pool	admin	The site is offline	Cluster (aCloud-Test-Pool) is offline. Please check network and whether username and password ...
Critical	2020-07-27 13:57:44	Cluster	aCloud-Test	aCloud-Test-Pool	admin	Cluster is offline	Cluster (aCloud-Test) is offline. Please check network and whether username and password are c...
Medium	2020-07-27 13:41:41	Node	DR Site	DR Site	admin	host_cpu	CPU usage of node [DR Site] has been above 90.0% for a certain period of time. Please shut ...
Medium	2020-07-27 13:13:58	Node	DR Site	DR Site	admin	host_compute_mem_oom	Computational memory of the host [DR Site] is seriously inadequate. Used: 189.21 GB, availa...
Critical	2020-07-27 12:59:45	Site	aCloud-Test-Pool	aCloud-Test-Pool	admin	The site is offline	Cluster (aCloud-Test-Pool) is offline. Please check network and whether username and password ar...
Critical	2020-07-27 12:57:43	Cluster	aCloud-Test	aCloud-Test-Pool	admin	Cluster is offline	Cluster (aCloud-Test) is offline. Please check network and whether username and password are conf...
Medium	2020-07-27 12:41:40	Node	DR Site	DR Site	admin	host_cpu	CPU usage of node [DR Site] has been above 90.0% for a certain period of time. Please shut d...

3. It supports to filter the alarm based on date, object type, resources pool and tenant.



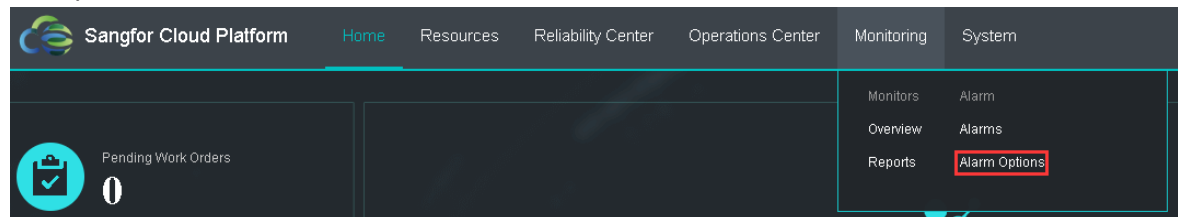
3.4.2.2 Alarm options

[Function Description]

Sangfor SCP cloud platform can detect and alarm on cloud virtual machine, physical hardware, network and serial number information, support email notification, and support custom setting of alarm conditions.

[Operating Steps]

1. Log in to the home page of the SCP platform and select **【Monitoring】 > 【Alarm Options】**.



2. Configure the alarm condition based on the need.

3. The alarm also supports to configure alarm notification, and it will send the notification to the user email.

Overview
Reports
Alarms
Alarm Options

Virtual Machine
Physical Device
Networking
License
Alarm Notification

Alarm Email

☒ Enable

SMTP server has been configured. [Settings](#)

☐ For alarm-triggering events of the same category occurring within 120 minutes, send one alert email only (one for each node)

Platform administrators can receive all the email notifications while tenants can only receive alarms on resources assigned to them.

Save

4. Click on the "Setting" to configure SMTP server.

General
System Maintenance
Recycle Bin
System Security

Licensing
Platform License
Cluster License
Security Resource License

Services
Date and Time
Network Settings
SMTP Server
Authentication
SSO Settings
Customization

SMTP Server

SenderAddress: abc@sangfor.com

SMTP Server:

Encryption Protocols: SSL

Port: 465

☒ Authentication required

Username: abc@sangfor.com

Password:

Save

Send Test Email

5. After the SMTP is configure, you are able to add the alarm recipient.

Overview
Reports
Alarms
Alarm Options

Virtual Machine
Physical Device
Networking
License
Alarm Notification

Alarm Email

☒ Enable

SMTP server has been configured. [Settings](#)

☐ For alarm-triggering events of the same category occurring within 120 minutes, send one alert email only (one for each node)

Platform administrators can receive all the email notifications while tenants can only receive alarms on resources assigned to them.

Save

Alarm Recipients

Add
Delete

<input type="checkbox"/>	Username	Role	Role Type	Tenant	Email Address	Operation
<input type="checkbox"/>	support	test	Platform Administrator	admin	support@support.com	Remove

Chapter4 FAQ

1. Cluster is managed by multiple SCPs simultaneously: When a cluster is managed by multiple SCPs simultaneously, only one SCP can be authorized successfully.

Solution: Cancel the management from the excess SCP, and it will return to normal after a few minutes, or turn off the excess SCPs, and it will return to normal in 30 minutes.

2. IP address conflict in cluster: Because authorization information may be rejected on the wrong cluster, this problem may occur when multiple HCI clusters are configured with the same IP address.

Solution: It will recover immediately after IP address conflicts are resolved.

3. HCI is forcibly removed from the management: Log in to the HCI front-end, click "Manage" and view the "License" icon status. If HCI has been removed from the management, and SCP shows that it is in the state of the management, then this is the cause.

Solution: Delete the cluster on SCP and re-manage it.



Copyright © SANGFOR Technologies Inc. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of SANGFOR Technologies Inc.

SANGFOR is the trademark of SANGFOR Technologies Inc. All other trademarks and trade names mentioned in this document are the property of their respective holders. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

The information in this document is subject to change without notice.

To obtain the latest version, contact the international service center of SANGFOR Technologies Inc

