



VINCHIN BACKUP & RECOVERY V4.0

User Guide

For SANGFOR HCI Backup

2018/11

INNOVATIVE VM BACKUP PROVIDER
VMware Backup | XenServer Backup | KVM Backup

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Summary

Product Overview

Vinchin Backup & Recovery is an easy-to-use, secured and reliable virtual machine data protection software designed to support multiple hypervisors including VMware vSphere, Citrix XenServer, RedHat Virtualization and open-sourced KVM under different virtual environments. It is an image-based agentless backup product which can be seamlessly integrated with your existing virtualization environments.

Vinchin Backup & Recovery supports Web UI management which allows users to manage & monitor any of their backup/restore tasks on either PC, mobile or tablet device. Flexible backup schedules set by daily, weekly, monthly let the backup jobs run as scheduled without system manager. All you need to do is to pre-set the job schedule when first running the software. Meanwhile, the Retention Policy helps users “save the valid” and “delete the expired” backed up data, so as to ensure the continuous operation of the backup tasks and same time save data repository space. When a disaster occurs cause the damage of the virtual machines, you only need to choose the latest restore point and specify a target host to restore to, the virtual machines will be recovered to the pre-disaster status. To help the administrators monitor and review their backup & restore jobs, Vinchin Backup & Recovery supports current jobs view, history jobs review, system logs review and management etc.

Key Features

- **High Compatibility:** Supports VMware, XenServer, RedHat, OpenStack, Sangfor, H3C, Inspur and other open-sourced KVM / XenServer based hypervisors .
- **Agentless Backup:** No need to install any agent on guest OS, Vinchin Backup & Recovery system directly protects VMs on hypervisor-level, leads non-consumption of OS resources. Thus to reduce VM deployment and maintenance workload.
- **Smart Backup Strategy:** Flexible & smart backup strategies help to do backup & restore jobs as scheduled according to your actual demands in different scenarios.
 - Time granularity of full backup, incremental backup and differential backup can be set to minute-level. Which means your backup job can be automatically repeated every xxx hours/minutes/seconds.
 - Multiple VMs can be backed up and restored concurrently under virtual environments.
 - CBT and valid data comparison technology realizes valid data backup in VMs, and minimizes the backup time.
 - Use bank grade AES encryption to secure the transmission of VM backups. Also support data logic/physical isolation.
- **LAN-Free Data Transfer:** Using LAN-Free to backup and restore for VMware, XenServer and RHV under SAN

environment helps speed up backup and recovery time, lower the production system load.

- **Instant VM Recovery:** Instant VM Recovery helps to recover TB sized VMs in 15 secs, all business recovery in 1 min, minimized the break-off time of critical businesses.
- **Quick-verify Recovery Availability:** Recovering the VM backups to Data Verification Area (which is isolated with Business Area) by Instant VM Recovery helps to quick-verify the availability of backed up data.
- **Full VM Recovery:** When any damage or mistaken-delete happens to the backed up VM, you can fully restore it from any backup point in time rather than just "the latest backup point".
- **Live Migration:** After instantly recovering, the VM can be synchronously migrated to the production area via virtualization platform live-migration or Vinchin Backup & Recovery's live migration function without effecting the normal operation of your business.

Platform Support

Vinchin Backup & Recovery supports for the following virtualization platforms:

- VMware ESXI: 4.0 4.1 5.0 5.1 5.5 6.0 6.5 6.7 vSAN 6.x
- Citrix XenServer: 5.6 6.x 7.x
- RedHat RHV/Ovirt: 4.0 4.1 4.2
- OpenStack + Ceph
- Sangfor HCI: 5.x
- H3C CAS: CAS 3.0 E0303/E0306
- Inspur InCloud Sphere: 4.0 4.5

System Login

Deploy the Vinchin Backup & Recovery in your virtual environment by following "Quick Installation Guide". Then you are able to access the below Vinchin Backup & Recovery Web UI Login Portal by entering corresponding IP address (e.g. <http://192.168.65.1>) via web browser (Google Chrome is recommended).

Default username: [admin](#)

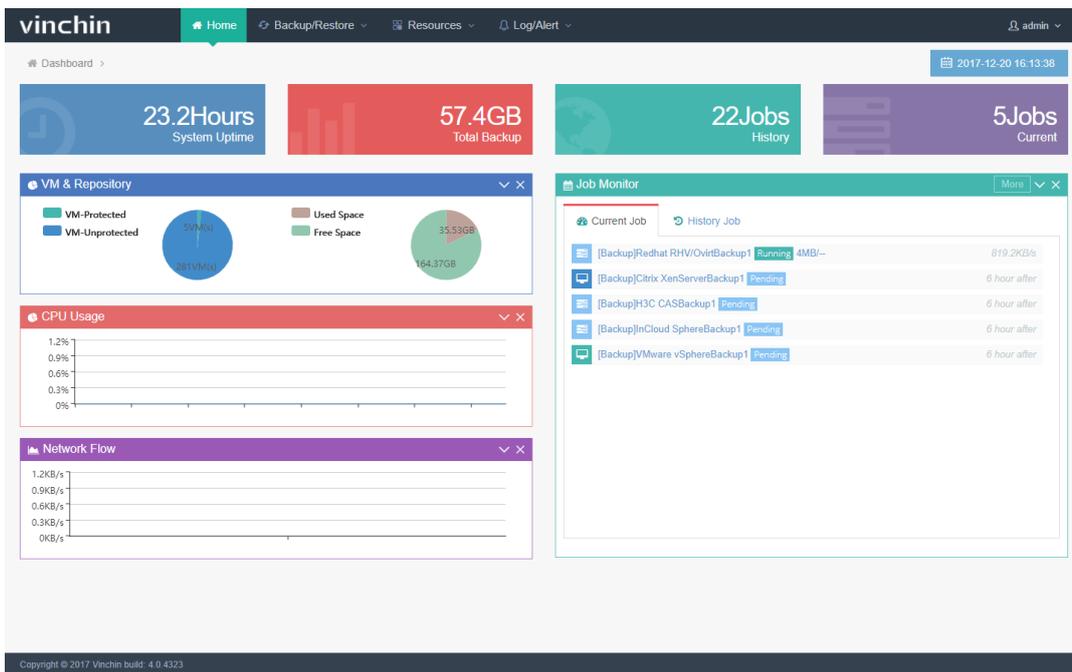
Default Password: [123456](#)



Note: If you forget your password:

1. Operator/Auditor, please contact your administrator to reset your password.
2. Administrator, please contact Vinchin Support Team to reset your password.

Home Page Overview



“System Uptime” is the system running time from the initial start-up to present (now).

“Total Backup” shows the accumulative backup size from the first backup to the latest backup.

“Current” shows current running job quantity.

“History” shows performed job quantity.

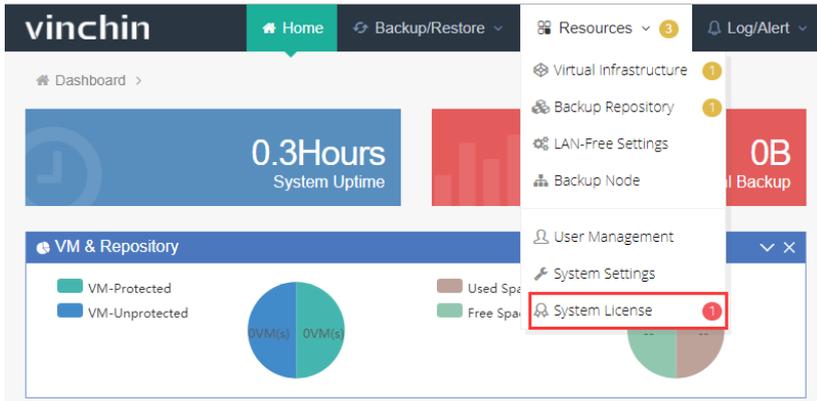
“CPU Usage” shows the CPU usage of the Vinchin backup server.

“Network Flow” shows the real-time network traffic of the system.

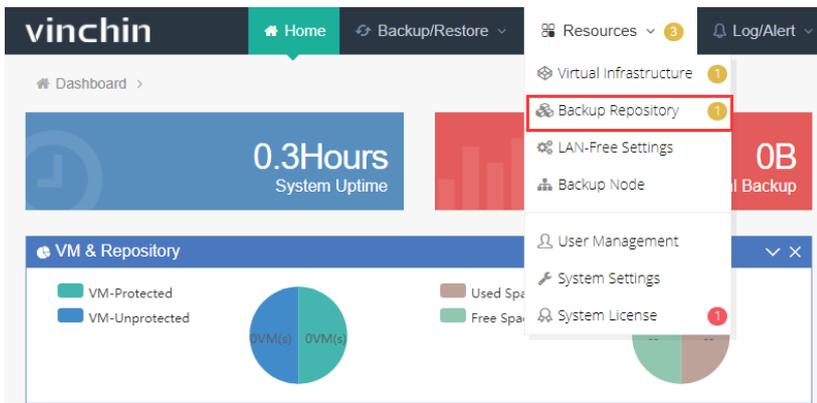
“VM & Repository” shows the number of protected/unprotected VMs and used/free space of backup repository.
“Current Job” shows the current job list, click “more” to review the current job details at “current Job” page.
“History Job” shows the history job list, click “more” to review the history job details at “History Job” page.

Getting Started

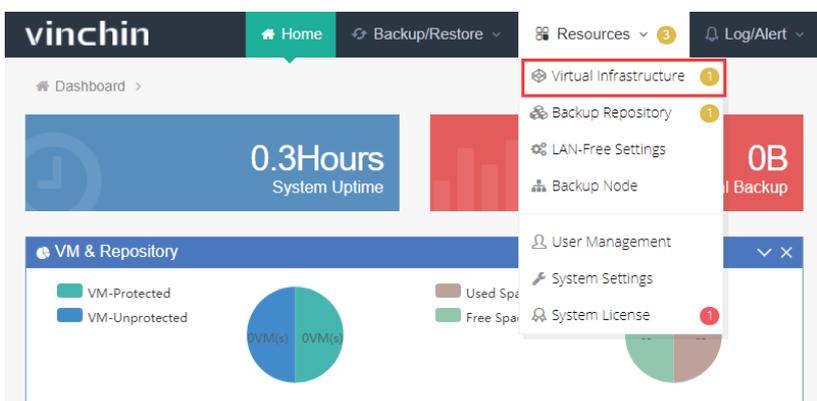
Upload Vinchin Backup & Recovery system [licence.key](#), details please refer to [System License](#).



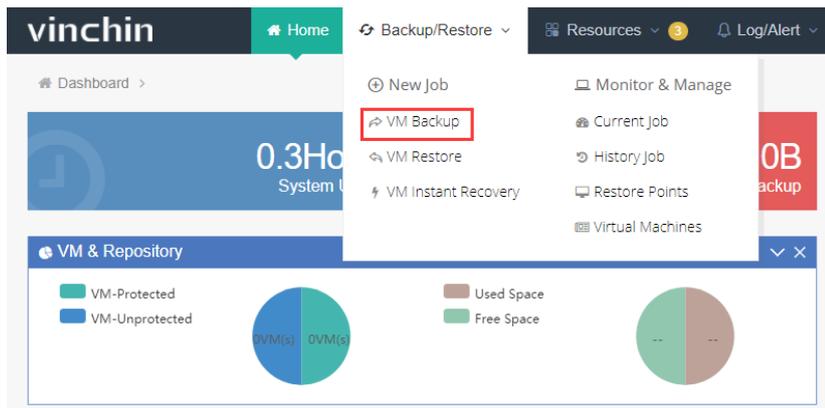
Add a storage location as backup repository, details please refer to [Manage Backup Repository](#).



Add a standalone host or a virtual machine cluster which need to be backed up, details please refer to [Virtual Infrastructure](#).



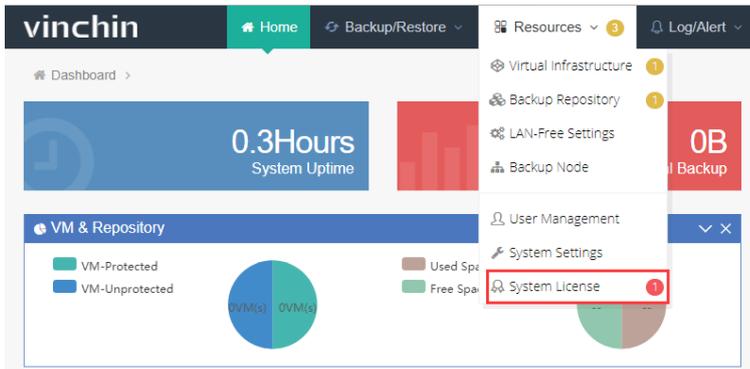
Create a new backup job to protect the target VMs, details please refer to [Backup/Restore Job](#).



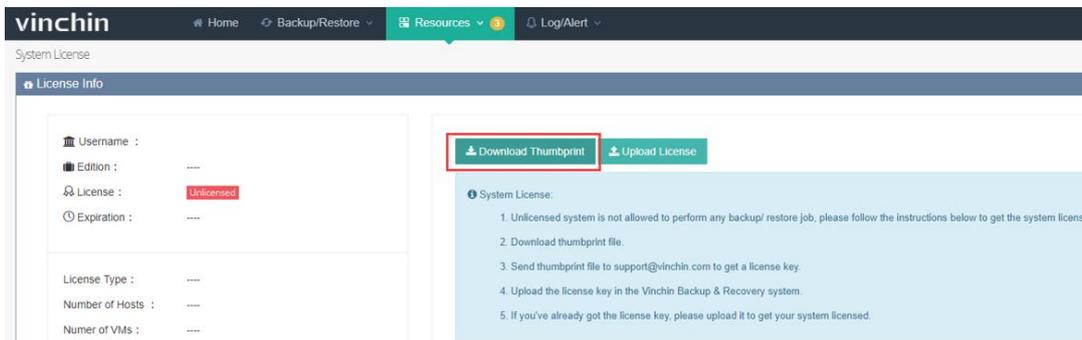
Resource Management

System License

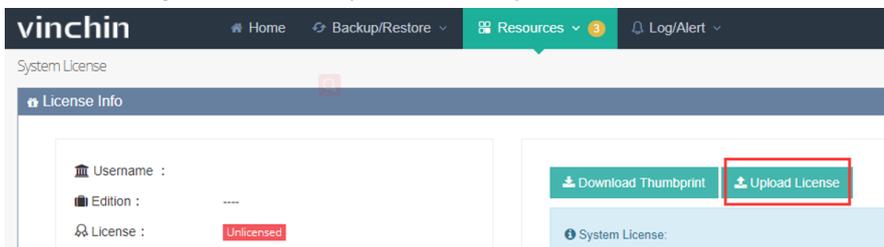
Before starting backup your VMs, you need to get a license key from Vinchin and successfully activate your license in Vinchin backup server from **Resources** → **System License** as below:



Then go to the **System License** page, click “Download Thumbprint”, a txt file named “thumbprint.txt” will be downloaded. Send this txt file to support@Vinchin.com and you will receive an email with corresponding “license.key” file in a minute.



After receiving the “licence.key” file, click “Upload License”, choose the “licence.key” file and click “open”:



After uploaded the “license.key” file, you will see the detailed information of your username, software edition (Standard or Enterprise), expiration date, license type and license limitations etc.

If you already have a license in hand, please upload it directly.

If you are using a perpetual license, there will be no expiration date. If you are using a trial license, the license will

be expired and unavailable after a specified period. Please contact Vinchin Support for a perpetual license before expiration.

License Info

Username : ---
Edition : Enterprise
License : Trial License (365 days left)
Expiration : 2018-12-26 17:28:05

License Type : Per Host
Number of Hosts : 2 / 50
Number of VMs : Unlimited
Storage Capacity : Unlimited
Number of CPUs : Unlimited

Node Expansion : Unlimited
Multi-users : Unlimited

Manage Backup Repository

Backup repository is a place to store backed up data. Vinchin Backup & Recovery system supports multiple types of storage as backup repository including Partition, Local Disks, LVM, FC, iSCSI, NFS and CIFS. Users can add any of them when necessary. Click **Resources** → **Backup Repository** as below:

vinchin Home Backup/Restore Resources Log/Alert

Dashboard >

0.5Hours System Uptime

Virtual Infrastructure 1
Backup Repository 1
LAN-Free Settings
Backup Node

0B Backup

Add Backup Repository

Click “Add” in the **Backup Repository** page to add a new backup repository by following below steps:

vinchin Home Backup/Restore Resources Log/Alert

Backup Repository

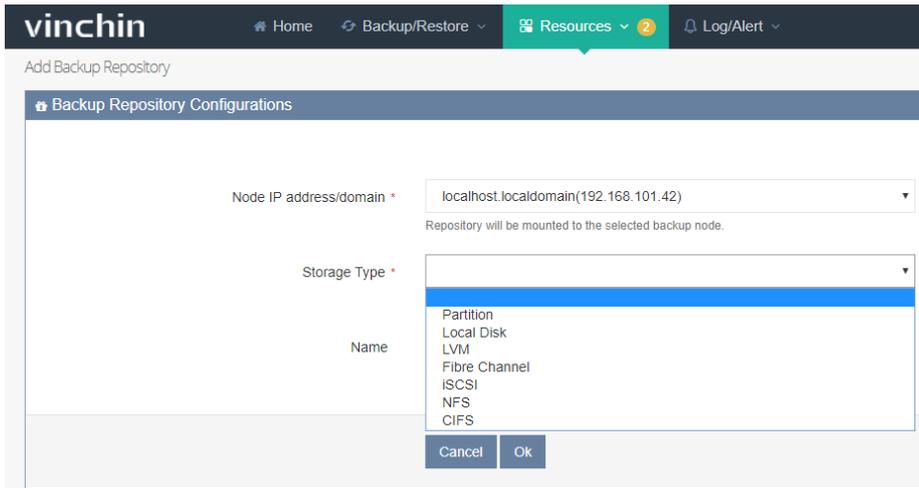
Backup Repository List

+ Add Edit Delete Manage Imported Backups

	Name	Type	Mount Node
			No

First, choose a backup node from the “Node IP address/domain” where you want to mount your backup repository. If there’s more than one backup node in your virtual environment, choose one of them to mount your target storage resource as a backup repository.

Second, specify a storage type which you want to add as backup repository as below:



Note: Please make sure the specified storage type is the one your production system actually is using.

Third, set up a critical value of storage from storage alert so that when your backup storage is insufficient, system will alert and send you email notification.

Storage Alert On

Mode

Value %

Partition

Choose Partition from the “Storage Type”, system will recognize the un-mounted /un-used partitions as below shows:

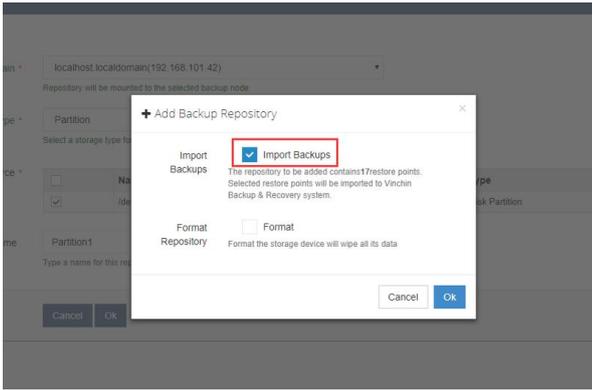
Node IP address/domain

Storage Type

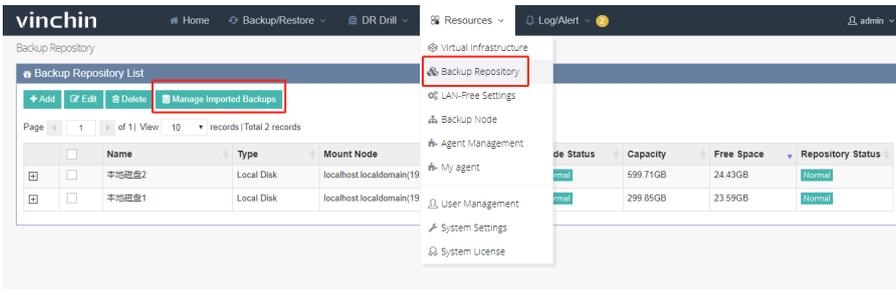
<input type="checkbox"/>	Name	Type	Capacity
<input checked="" type="checkbox"/>	/dev/sdb1	Disk Partition	300GB

Name

Tick the selected partition, if there is previous backed up data in this partition, you can choose to import the backups so that you can restore them whenever necessary:



After importing the previous backups, please refer to [Manage Imported Backups](#) to manage these backups:



If you don't want to save these data, you can tick "Format" to format the repository:

Warning: If you choose "Format", all the data in this repository will be erased.

Local Disk

Choose Local Disk from the "Storage Type", system will recognize the un-mounted /un-used disks as below:

Node IP address/domain * localhost.localdomain(192.168.101.42)
 Repository will be mounted to the selected backup node.

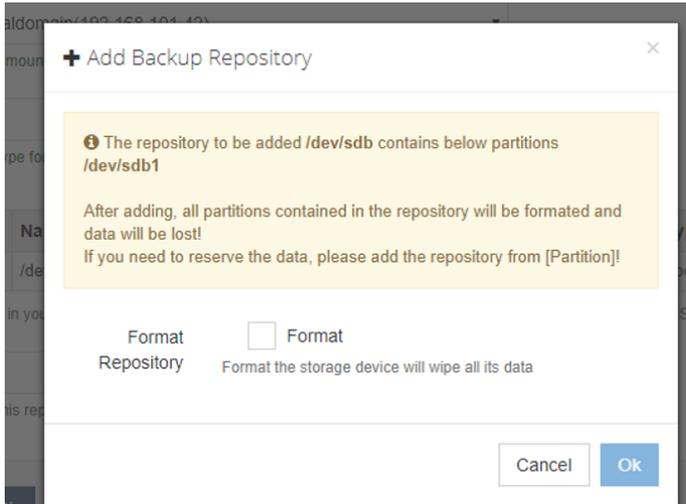
Storage Type * Local Disk
 Select a storage type for the repository

	Name	Type	Capacity
<input checked="" type="checkbox"/>	/dev/sdb	Local Disk	300GB

If there is partition in your storage resource, and you want to save the partition data, please select "Partition" from the Storage Type.

Name Local Disk1
 Type a name for this repository.

Tick the selected disk, a window with Format Storage will come out as below:



Warning: If you add a local disk as backup repository, the disk will be forcibly formatted, all the data in this disk will be erased.

After adding repository completed, you can see the added repositories in the **Backup Repository List** as below:

Name	Type	Mount Node	Node Status	Capacity	Free Space	Repository Status
Local Disk1	Local Disk	localhost.localdomain(192.168.101.42)	Normal	299.85GB	299.82GB	Normal

LVM

Choose LVM (Logic Volume) from the “Storage Type”, system will recognize the un-mounted /un-used logic volumes as below:

Node IP address/domain *

Repository will be mounted to the selected backup node.

Storage Type *

Select a storage type for the repository

Storage Resource *

Name	Type	Capacity
<input checked="" type="checkbox"/> /dev/mapper/vinchin_vg-vinchin_lvm	LVM	200GB

Name

Type a name for this repository.

Tick the selected LVM, if there is previous backed up data in this LVM, you can choose to import the backups so that you can restore them whenever necessary:

+ Add Backup Repository ×

Import Backups **Import Backups**
 The repository to be added contains 17 restore points. Selected restore points will be imported to Vinchin Backup & Recovery system.

Format Repository **Format**
 Format the storage device will wipe all its data

After importing the previous backups, please refer to [Manage Imported Backups](#) to manage these backups:

The screenshot shows the 'Backup Repository List' page in the Vinchin interface. The 'Manage Imported Backups' button is highlighted with a red box. A dropdown menu is open, also highlighting the 'Backup Repository' option. The table below shows two local disk repositories.

Name	Type	Mount Node	Node Status	Capacity	Free Space	Repository Status
本地磁盘2	Local Disk	localhost.localdomain(19	Normal	599.71GB	24.43GB	Normal
本地磁盘1	Local Disk	localhost.localdomain(19	Normal	299.85GB	23.59GB	Normal

If you don't want to save these data, you can tick "Format" to format the repository.

Warning: If you choose "Format", all the data in this repository will be erased.

After adding a LVM as backup repository, you can see the added repositories on the **Backup Repository List** page as below:

The screenshot shows the 'Backup Repository List' page in the Vinchin interface. The table below shows one LVM repository.

Name	Type	Mount Node	Node Status	Capacity	Free Space	Repository Status
LVM1	LVM	localhost.localdomain(192.168.101.42)	Normal	199.9GB	199.87GB	Normal

Fibre Channel

Choose Fibre Channel from the "Storage Type", system will recognize the Fibre channel information and WWPN No. of HBA card. Map the LUN of FC storage server to the backup server. After mapping, choose FC again from the "Storage Type", system will recognize the mapped LUN as below:

Node IP address/domain * localhost.localdomain(192.168.65.5)
 Repository will be mounted to the selected backup node.

Storage Type * **Fibre Channel**
 Select a storage type for the repository

Fibre Channel

No.	Channel	wwnn	wwpn	Speed	Status
1	host0	20:00:00:1b:32:81:7fed	21:00:00:1b:32:81:7fed	4 Gbit	Normal

Map the target FC LUN to the corresponding WWN

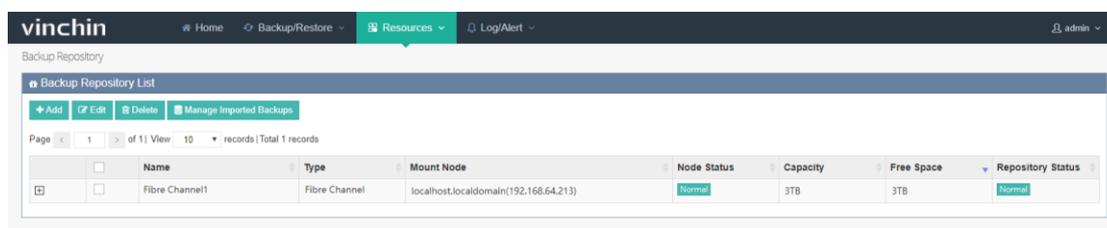
Storage Resource *

<input type="checkbox"/>	Name	Type	Capacity
<input type="checkbox"/>	/dev/sdd1	VMware vSphere	3TB

If there is partition in your storage resource, and you want to save the partition data, please select "Partition" from the Storage Type.

Name: Fibre Channel1
 Type a name for this repository.

After adding a FC storage as backup repository, you can see the added repositories in the "Backup Repository List" as below :



Note: If you add a FC storage as backup repository, the FC storage will be forcibly formatted, all the data in this storage will be erased. If there are previous backup data in this FC storage and you don't want to format it, please add this storage via "Partition".

iSCSI

Choose iSCSI from the "Storage Type", you will see the iSCSI IQN information. Map the LUN of iSCSI storage server to the backup server IQN. After mapping completed, enter iSCSI server address and click "Scan the Target", system will recognize the mapped LUN as below:

Node IP address/domain * localhost.localdomain(192.168.101.42)
 Repository will be mounted to the selected backup node.

Storage Type * **iSCSI**
 Select a storage type for the repository

iSCSI Name * iqn.1994-05.com.redhat:347b96bc2c7

iSCSI Server * 192.168.1.183 3260
 Enter IP address of the iSCSI server. Please make sure the network connection between the backup node and the iSCSI server is available. If multiple paths exist, you can add an address.

Target LUN *

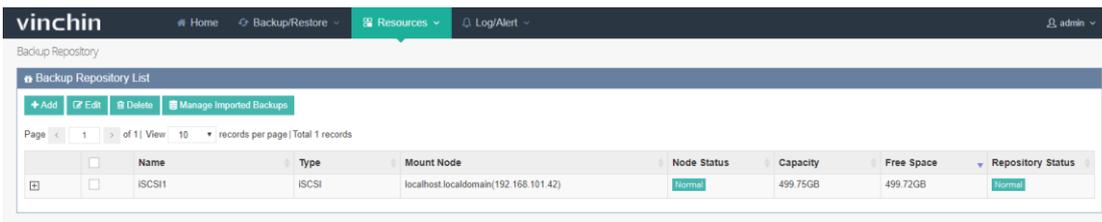
<input type="checkbox"/>	Name	iqn	Type	Capacity
<input checked="" type="checkbox"/>	/dev/sdc	iqn.2002-10.com.infotrend.raid.uld335812.001	iSCSI	500GB

If there is partition in your storage resource, and you want to save the partition data, please select "Partition" from the Storage Type.

Name: iSCSI1
 Type a name for this repository.

Choose a LUN and click "OK", the iSCSI storage will be added successfully. After adding an iSCSI storage as backup

repository, you can see the added repositories in the “Backup Repository List” as below:



	Name	Type	Mount Node	Node Status	Capacity	Free Space	Repository Status
<input type="checkbox"/>	iSCSI1	iSCSI	localhost.localdomain(192.168.101.42)	Normal	499.75GB	499.72GB	Normal

Note: If you add an iSCSI storage as backup repository, it will be forcibly formatted, all the data in this storage will be erased. If there are previous backup data in this iSCSI storage and you don't want to format it, please add this storage via “Partition”.

NFS

Choose NFS from the “Storage Type”, enter your shared folder path as below:



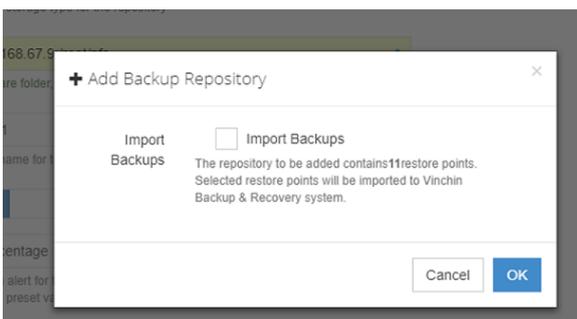
Node IP address/domain * localhost.localdomain(192.168.101.42)
Repository will be mounted to the selected backup node.

Storage Type * NFS
Select a storage type for the repository

Share Folder * 192.168.67.8:/root/nfs
NFS share folder, e.g. 192.168.1.10:/path/directory

Name NFS1
Type a name for this repository.

If there is previous backed up data in this storage, you can import these data to Vinchin backup server by ticking “Import Backups” option so that you can restore them whenever necessary:

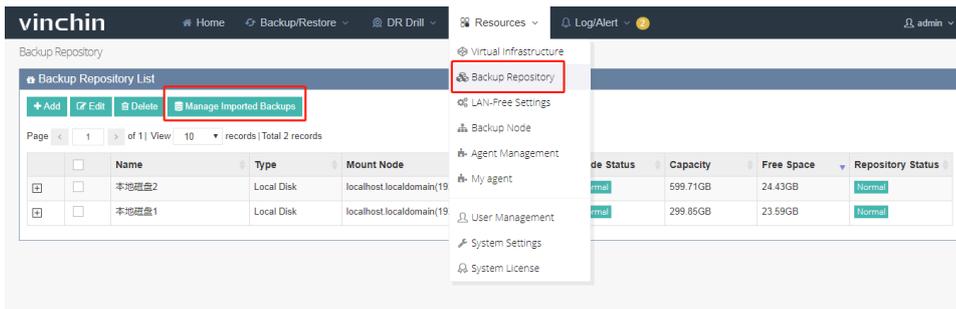


+ Add Backup Repository

Import Backups Import Backups
The repository to be added contains 11 restore points.
Selected restore points will be imported to Vinchin Backup & Recovery system.

Cancel OK

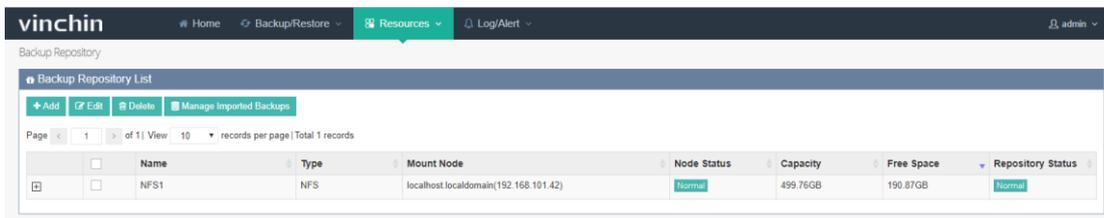
After importing the previous backups, please refer to [Manage Imported Backups](#) to manage these backups:



If you don't want to import these data, click "OK" without ticking the "Import Backups".

Note: The share folders' previous data will not be erased when adding NFS storage.

After adding the NFS storage completed, you can see the added repositories in the "Backup Repository List" as below:



CIFS

Choose CIFS from the "Storage Type", enter your shared folder path, username and password as below:

Node IP address/domain * localhost.localdomain(192.168.101.42)

Repository will be mounted to the selected backup node.

Storage Type * CIFS

Select a storage type for the repository

Share Folder * //192.168.67.12/gongxiang ✓

CIFS share folder, e.g. //192.168.1.10/path/directory

Username * vinchin ✓

Username for accessing CIFS

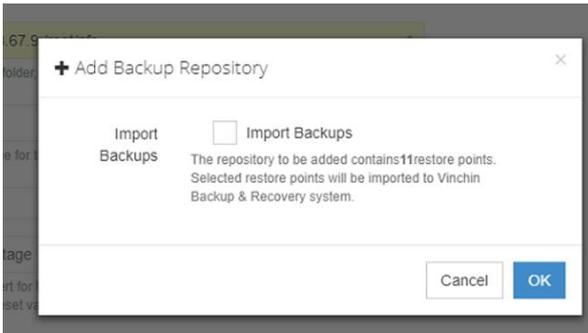
Password * ✓

Password for accessing CIFS

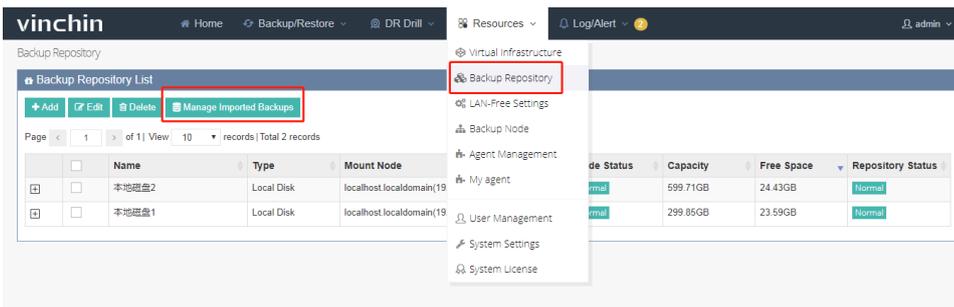
Name * CIFS1

Type a name for this repository.

If there is previous backed up data in this storage, you can import these data to Vinchin backup server by ticking "Import Backups", so that you can restore them whenever necessary:



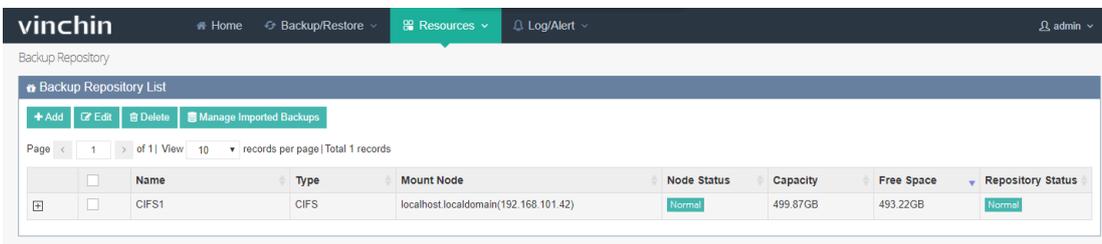
After importing the previous backups, please refer to [Manage Imported Backups](#) to manage these backups:



If you don't want to import these data, click "OK" without ticking the "Import Backups".

Note: The share folders' previous data will not be erased when adding NFS storage.

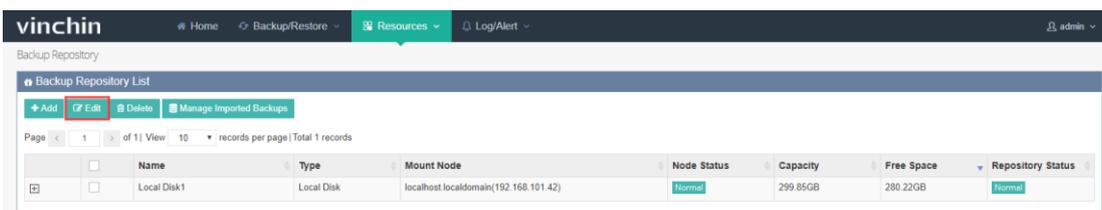
After adding the CIFS storage completed, you can see the added repositories in the "Backup Repository List" as below:

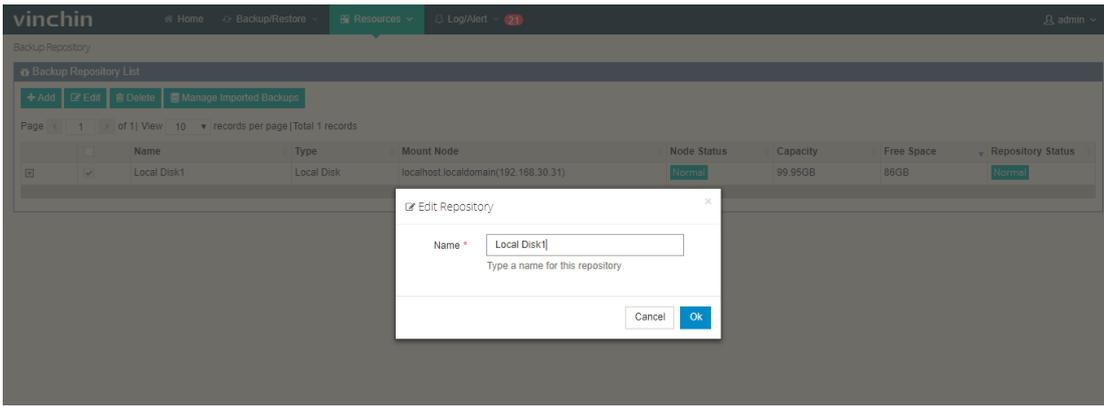


Note : The share folders' previous data will not be erased when adding CIFS storage.

Edit Backup Repository

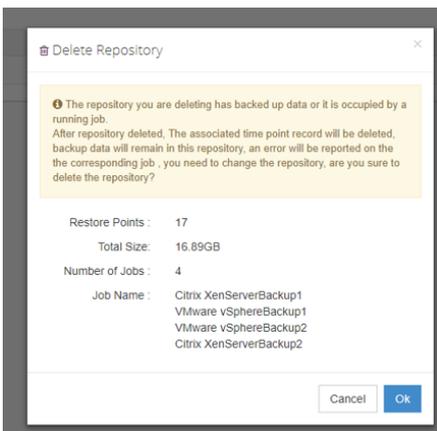
Choose a repository, click "Edit" you can edit the repository name.





Delete Backup Repository

You can delete any of the repositories from the “Backup Repository List”. Choose a repository, click “Delete”. If there are backup data in this repository, system will remind you as below:

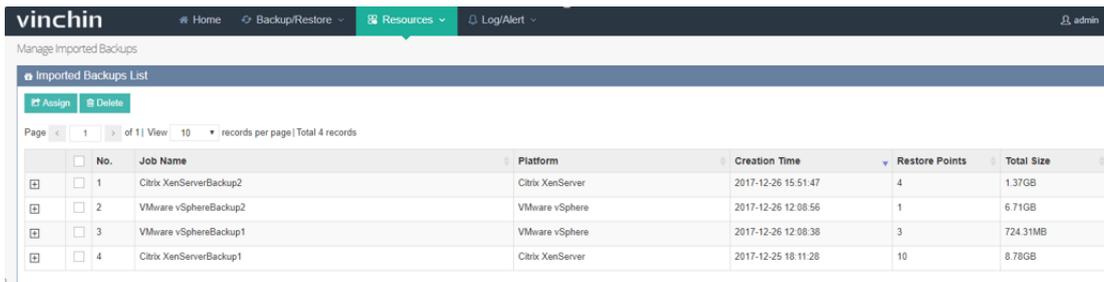
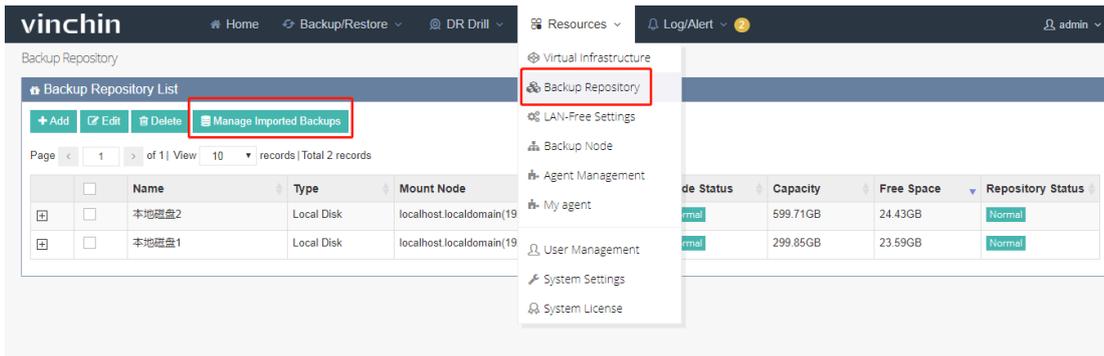


Click “OK” to delete the repository. The deleted repository can be re-added via “Partition”.

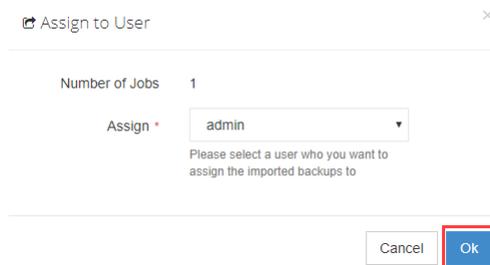
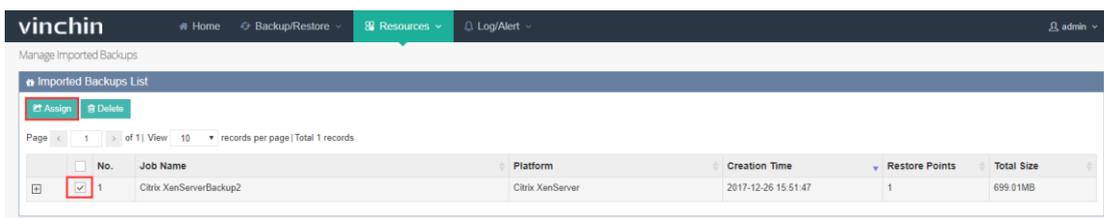
Note: Deleting the repository is a logical action rather than a physical action, which means the VM corresponding restore point record will be deleted, but the backups will not be deleted actually. If you need the backups, you can re-add the data located repository to vinchin backup server. Choose “Partition” to import the data.

Manage Imported Backups

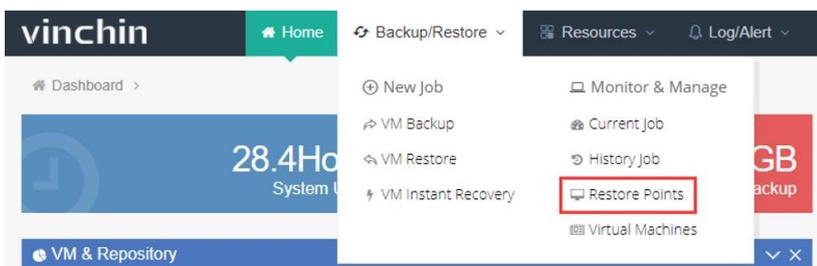
If you have imported the previous backups when adding **Partition**, **LVM**, **NFS** and **CIFS** as backup repository, you are able to manage these data from here.



If you want to restore the imported backups, you need to first assign them to a user who has right to manage the backups, click "Assign" as below:

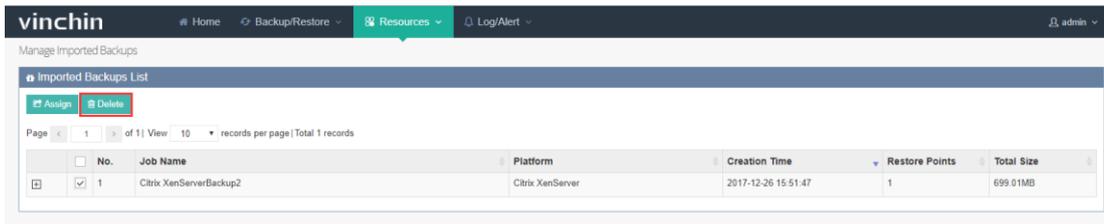


Log in the target user account, the assigned backups is listed in his **Backup/Restore**→ **Restore Points** page:



Note: You can create a new restore job to restore the imported backups, the imported backups will be scanned out automatically when creating new restore job.

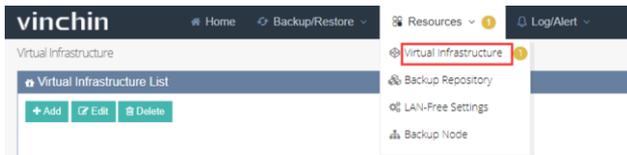
If you don't need the imported backups, you can delete them by clicking "Delete" as below.



Warning: Once deleted, the imported backups are unrecoverable permanently.

Virtual Infrastructure

Before starting backup, you need to register your virtual infrastructure (either a VM Manager Server e.g. vCenter or a standalone host e.g. ESXi host) in Vinchin backup server. Click "Resources" → "Virtual Infrastructure" as below:



Add Server

Click "Add" you are coming to the virtual infrastructure adding page. Choose a virtualization platform (depends on your virtual environment) → Enter IP address, username, password of individual host /VM Manager Server and rename it, then click "OK" to save.

Platform * VMware vSphere
Select a virtualization platform to be backed up.

IP/Domain * 192.168.64.10
To backup individual host, please enter its IP address or domain name.
To backup multiple hosts, please enter IP address or domain name of corresponding VM Manager server (e.g. vCenter for VMware vSphere).

Username * root
Username of individual host/VM Manager Server

Password *
Password of individual host /VM Manager Server

Name 192.168.64.10
Type a name for the individual host /VM Manager Server

Platform: Supports VMware vSphere, Citrix XenServer, RedHat RHV/Ovirt, Sangfor, H3C CAS and Inspur InCloud.
IP Address/Domain: Either a standalone host IP address/domain (e.g. ESXi host) or a VM Manager Server IP

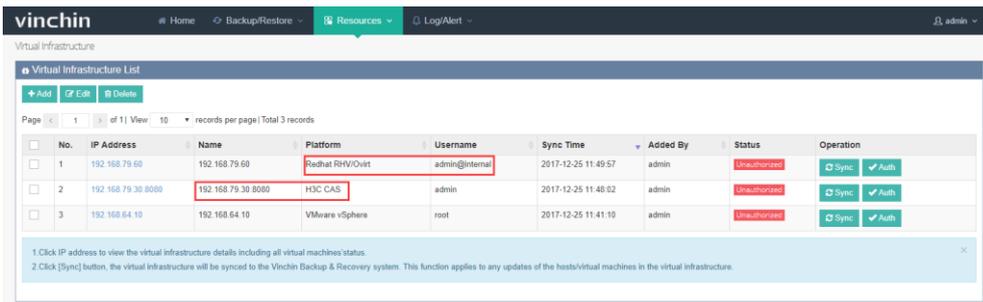
address/domain (e.g. vCenter).

Username/Password: The username /password to access to the individual host /VM Manager Server.

Rename: Edit a name for this new added individual host /VM Manager Server.

Note:

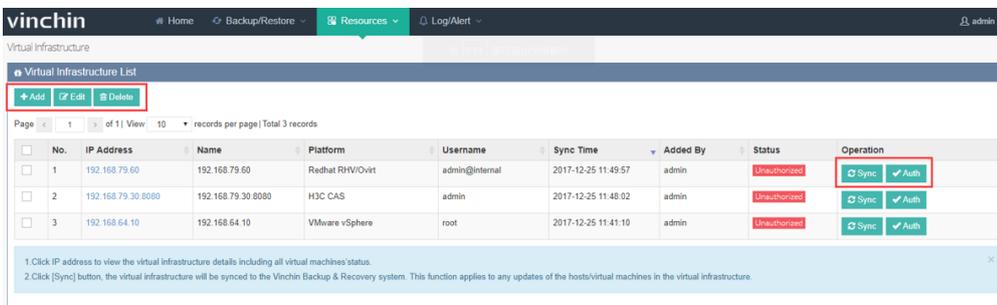
- For XenServer, RHV/Ovirt, InCloud Sphere and H3C CAS, it is required to install a corresponding backup plugin on their hypervisors before getting started, details please refer to [Backup/Restore Job](#).
- For H3C CAS, port number “8080” is required to be added in the name; For Redhat RHV/Ovirt, “@internal” is required to be added in the username as below:



Edit Server

After adding the servers, you can find them in the Virtual Infrastructure list.

Click “Sync” button, the virtual infrastructure will be synced to the Vinchin backup server.

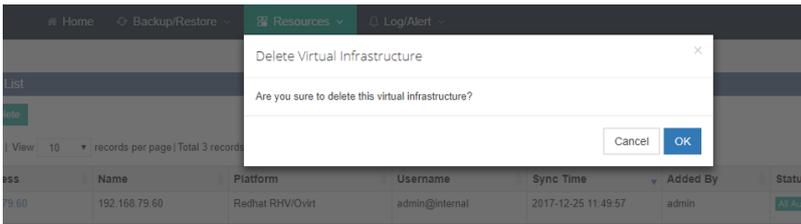


Note: This function applies to any updates of the hosts/virtual machines in the virtual infrastructure. You can also click “Sync” to refresh your server when creating a new job.

Tick a virtual infrastructure and click “Edit”, you are able to edit the details of the virtual infrastructure, click “OK” to save the changes.

Delete Server

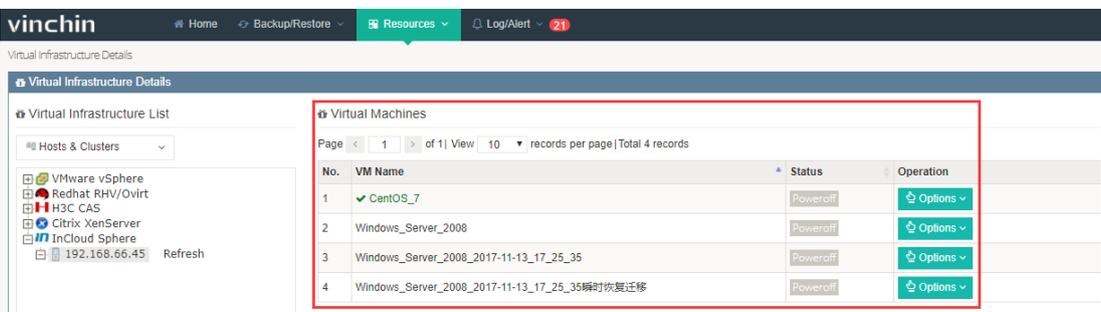
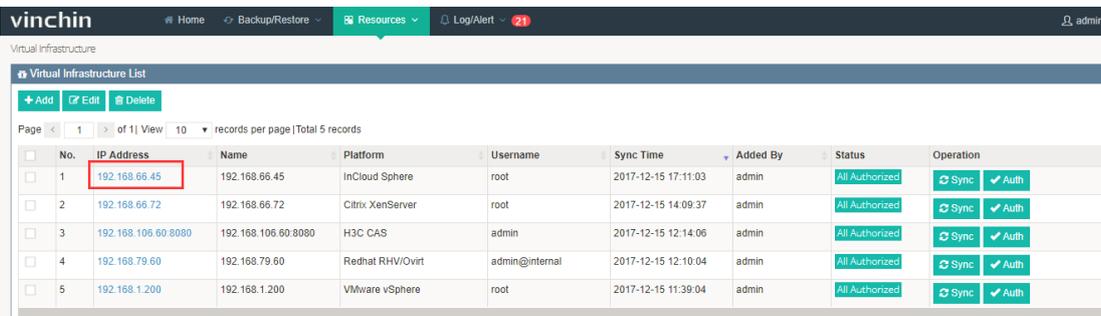
Tick a virtual infrastructure and click “Delete”, the system will re-confirm with you this action as below, click “OK” the server will be deleted.



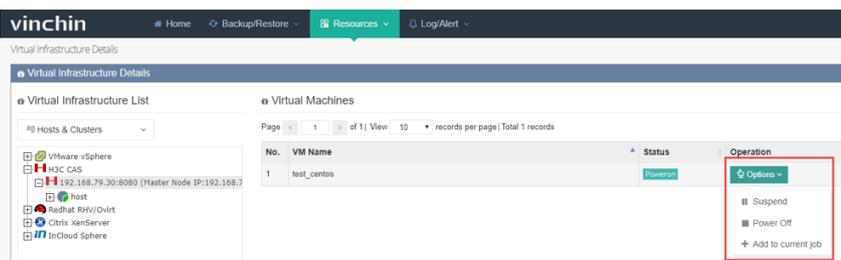
Note: The virtual infrastructure cannot be deleted when it is used in a running job. You must delete the running job before deleting the virtual infrastructure.

Manage Virtual Machines

Click IP address of one virtual infrastructure you are coming to the page showing the virtual infrastructure details including all virtual machines status. Expanding the virtual infrastructure tree on the left, you will see all the VMs under this infrastructure on the right side.



Choose one VM and click “Options” under “Operation”, you can power on, pause or power off the VM. You can also choose to add this VM to the existed backup jobs.



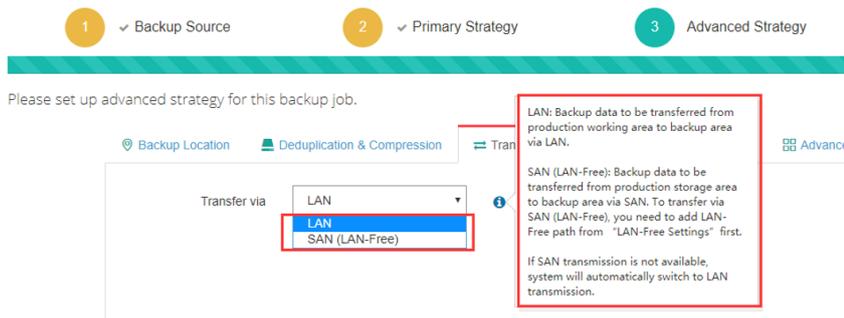
Note: After you change the VM status, please go back to the virtual infrastructure page and sync the VM located virtual infrastructure manually.

LAN-Free Settings

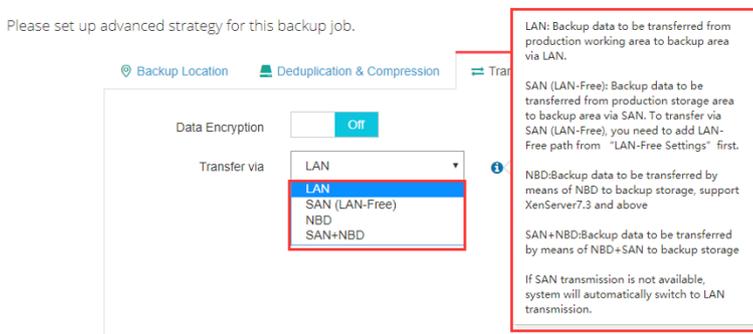
Data usually is transferred via LAN, but when the data size is too large, network jam will probably occur. Using LAN-Free to backup and restore under SAN environment can help to reduce network jam, improve backup and recovery speed without building any separate DR backup network.

Note: LAN-Free backup is available for **VMware**, **XenServer** and **RHV**.

- For VMware and RHV, you can choose transfer via SAN (LAN-Free) in the “Transmission Network” options when creating a backup / restore job.



- For XenServer, you can choose transfer via SAN (LAN-Free) or SAN+NBD in the “Transmission Network” options when creating a backup / restore job so that to back up your VMs via LAN-Free.



Add LAN-Free Repository

Mapping the production storage to Vinchin backup server, can let the Vinchin backup server directly read data from this storage. Highly improved the backup efficiency without affecting the production working network. Vinchin backup server currently supports **FC**, **ISCSI** and **NFS** LAN-Free settings.

Note: As different storage server has different LUN mapping methods, the following operations are for reference only.

FC Storage

Precondition: The LUN mapping of production storage is Fibre Channel mapping.

LAN-Free configuration step of FC storage are as below:

- Map the LUN of production storage to Vinchin backup server.

Partition Status

Partition Information

FC for 214

Size: 2.5 TB
 ID: 1F36115D1F3F698F
 Status: ✔ The volume has been mounted.
 Map: Yes

Capacity

Total Capacity: 2.5 TB
 Used Space: 2.5 TB (100%)
 Free Space: 0 MB (0%)

LUN Mapping Information

Channel	Host ID	Assignment
Channel 7	2100001B32810539(64,214)	Slot A
Channel 7	2101001B32A10539	Slot A

b) Click “Resources”→ “LAN-Free Settings”, you are coming to the LAN-Free settings page.

vinchin Home Backup/Restore Resources Log/Alert

LAN-Free Settings

LAN-Free Production Repository List

+ Add Edit Delete

Name	Type

Virtual Infrastructure
 Backup Repository
LAN-Free Settings
 Backup Node
 User Management
 System Settings
 System License

Click “Add”, and choose “Fibre Channel” from Storage Type, the system will recognize the LUN which is mapped to Vinchin backup server, and display corresponding production server and its total size.

vinchin Home Backup/Restore Resources Log/Alert

Add LAN-Free Production Repository

LAN-Free Production Repository Configurations

Node IP address/domain: localhost.localdomain(192.168.65.5)
 Repository will be mounted to the selected backup node.

Storage Type: **Fibre Channel**
 Select a storage type for the repository.

No.	Channel	wwnn	wwpn	Speed	Status
1	host0	20:00:00:1b:32:81:7fed	21:00:00:1b:32:81:7fed	4 Gbit	Normal

Map the target FC LUN to the corresponding WWN

Name	Type	Capacity
/dev/sdg1	VMware vSphere	5.46TB

Select a production repository to do LAN-Free backup. All the original data on this repository will not be changed.

Name: Fibre Channel1
 Type a name for this repository.

Note: The recognized production LUN type is the LUN mapped hypervisor type. If the production storage is mounted to ESXi host, the Type will be VMware vSphere. If it is mounted to XenServer host, the Type will be Citrix XenServer as above.

Choose a production storage resource and click “OK”, you will find the added production storage in the LAN-Free Production Repository List.

vinchin Home Backup/Restore Resources Log/Alert admin

LAN-Free Settings

LAN-Free Production Repository List

+ Add Edit Delete

Name	Type	Mount Node	Node Status	Capacity	Repository Status
Fibre Channel1	Fibre Channel	localhost.localdomain(192.168.64.213)	Normal	3TB	Normal

1. Vinchin Backup & Recovery supports LAN-Free backup of FC, iSCSI and NFS storage. Target VM will be backed up from production repository to backup repository without using LAN network.
 2. To LAN-Free backup VM, first you need to mount production repository where locates the target VM to a backup node Please click [Add] to start.
 3. Note: All the original data on the production repository will not be changed after mounted to the backup node

iSCSI Storage

Precondition: The LUN mapping of production storage is iSCSI mapping.

LAN-Free configuration of iSCSI storage are as below:

a) Map the LUN of production storage to Vinchin backup server.

The screenshot shows the 'Partition Status' window for 'iSCSI for 214'. It displays the following details:

- Size:** 200 GB
- ID:** 2F3790842B45FD3C
- Status:** The volume has been mounted.
- Map:** Yes

The Capacity section shows a total capacity of 200 GB, with 200 GB (100%) used space and 0 MB (0%) free space.

The LUN Mapping Information table is as follows:

Channel	Host ID	Assignment
Channel 0	iqn.1998-01.com.vmware:5875f5f0-6ccb-6f7c-a3fa-0cc47acb2262-2f3ca100(64...	Slot A
Channel 0	iqn.1994-05.com.redhat:347bf96bc2c7(101.42)	Slot A

b) Click "Resources" → "LAN-Free Settings", you are coming to the LAN-Free setting page. Click "Add", and choose Storage Type as iSCSI and click "Scan Target". The system will recognize the LUN which is mapped to Vinchin backup server, and display corresponding production host and its total size.

The screenshot shows the 'LAN-Free Production Repository Configurations' window in the Vinchin interface. The configuration is as follows:

- Node IP address/domain:** localhost.localdomain(192.168.101.42)
- Storage Type:** iSCSI
- iSCSI Name:** iqn.1994-05.com.redhat:347bf96bc2c7
- iSCSI Server:** 192.168.1.183 (checked), Port: 3260 (checked)
- Scan Target:** Button clicked
- Target LUN:** A table showing the recognized LUN:

<input type="checkbox"/>	Name	iqn	Type	Capacity
<input checked="" type="checkbox"/>	/dev/sdc1	iqn.2002-10.com.infortrend:raid.uid335812.001 iqn.2002-10.com.infortrend:raid.uid335812.001	VMware vSphere	200GB

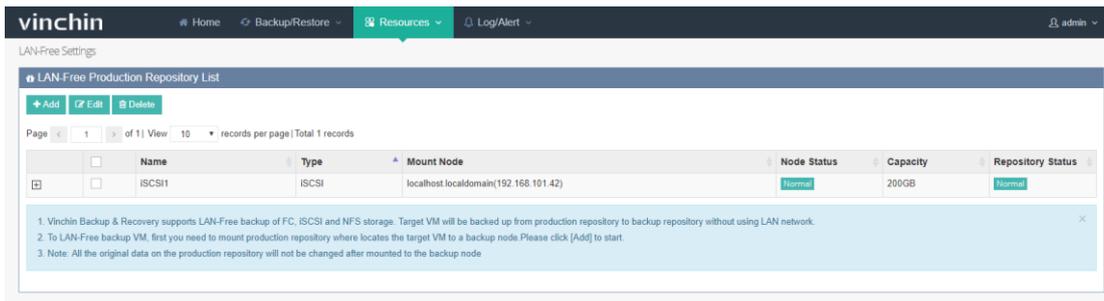
Select a production repository to do LAN-Free backup. All the original data on this repository will not be changed.

Name: iSCSI1

Buttons: Cancel, Ok

Note: The recognized production LUN type is the LUN mapped hypervisor type. If the production storage belongs to an ESXI host, the Type will show VMware vSphere. If it belongs to XenServer host, the Type will show Citrix XenServer as above.

Choose a production storage and click "OK", you will find the added production storage in the LAN-Free Production Repository List.

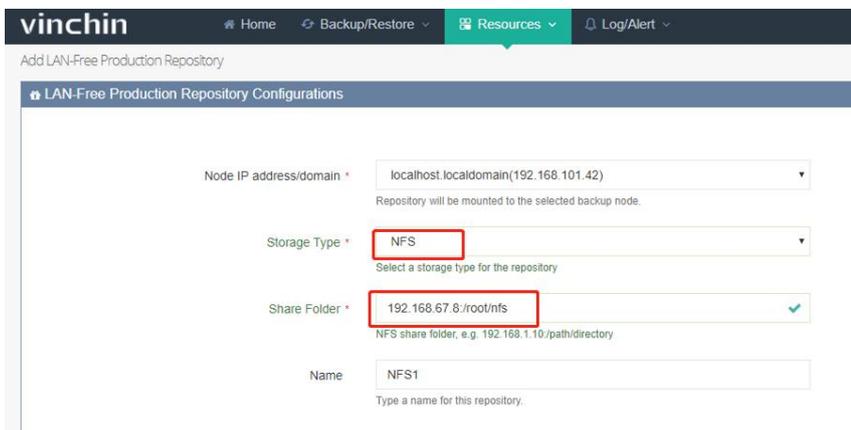


NFS Storage

Precondition: The storage type of production system is NFS.

LAN-Free configuration of NFS storage are as below:

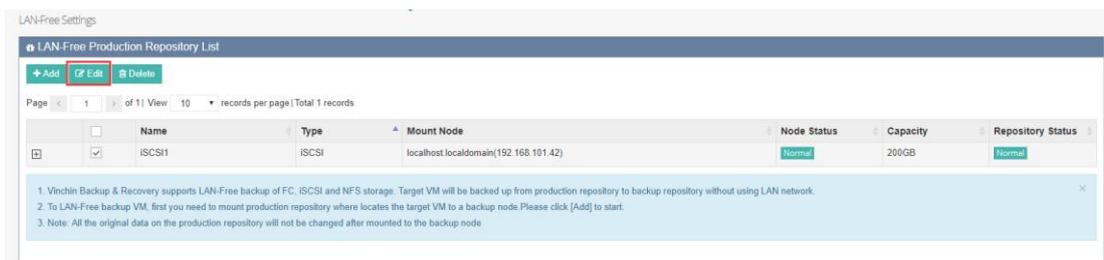
Click “Resources” → “LAN-Free Settings”, you are coming to the LAN-Free setting page. Click “Add”, and choose Storage Type as NFS, enter the storage shared folder path.

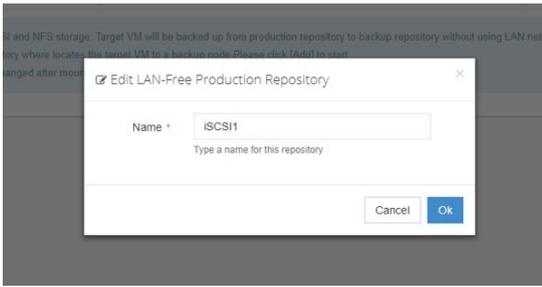


Warning: The production storage which has been mapped to the Vinchin backup server in LAN-Free Settings cannot be added as a backup repository! Adding a NFS storage as a backup repository will cause the production storage been formatted, all the data in there will be erased/ lost.

Edit LAN-Free Repository

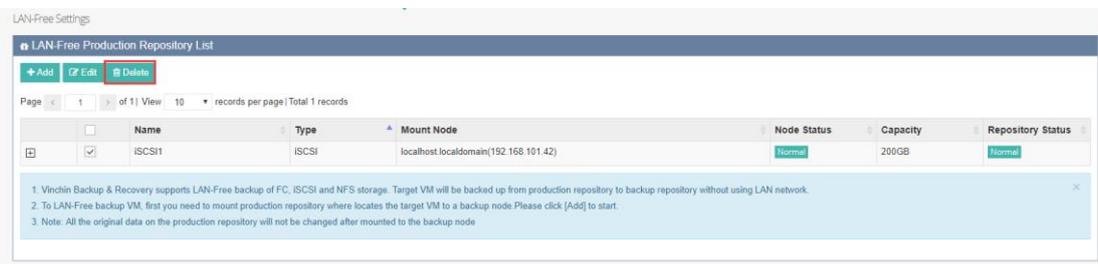
Choose a LAN-Free Production Repository, click “Edit”, you can edit a new name for this LAN-Free Production Repository.





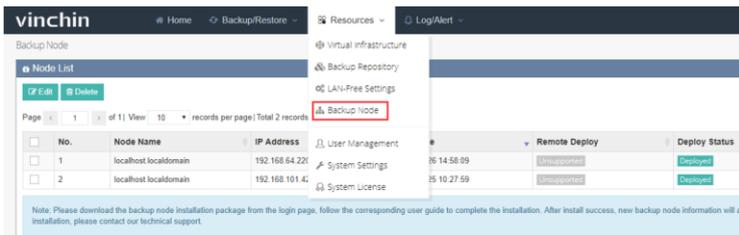
Delete LAN-Free Repository

Choose a LAN-Free Production Repository, click “Delete” you can delete this LAN-Free Production Repository.



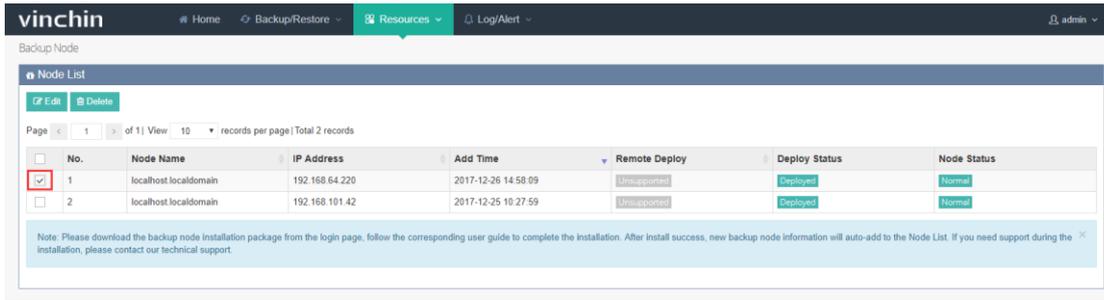
Manage Backup Nodes

Deploy the backup nodes by following “Quick Installation Guide” of Vinchin Backup & Recovery v4.0, then you can view all the backup nodes information in the “Resources” → “Backup Node” as below:

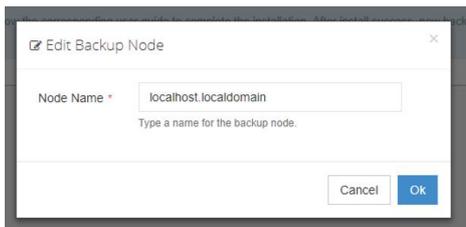


Edit Backup Node

Tick a backup node which you want to edit as below:

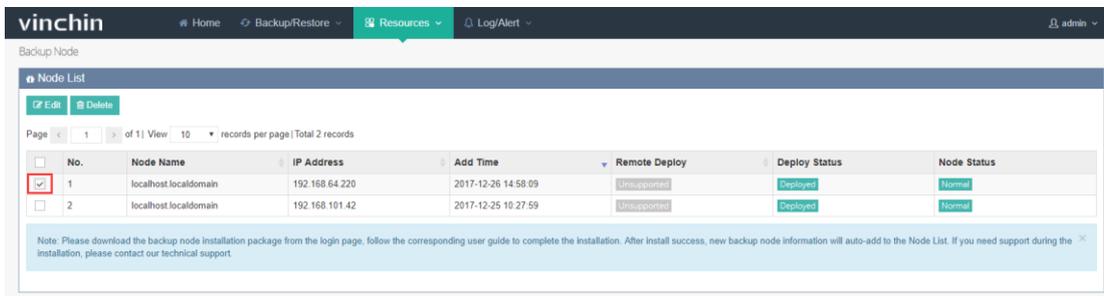


Click "Edit", you can edit a new name for this node as below:

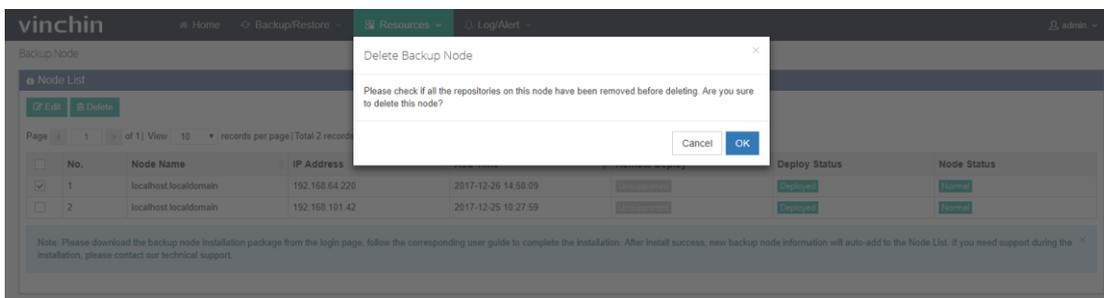


Delete Backup Node

Tick a backup node you want to delete as below:



Click "Delete", the system will re-confirm with you, click "OK" the node will be deleted as below:

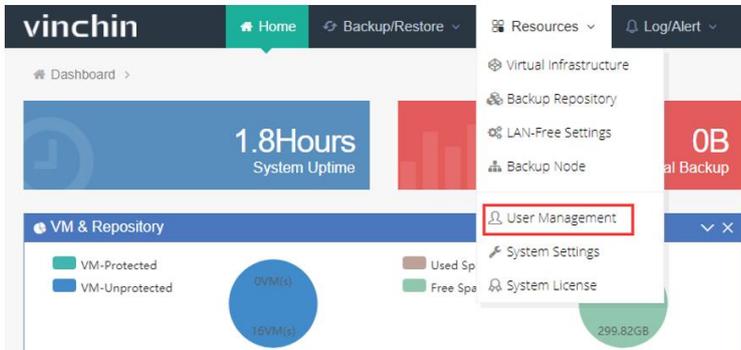


Note:

1. If there's storage mounted on this node, it is undeletable. Please delete the storage and ensure no jobs running on this node.
2. After deleting the node, you need to modify the node config file in the corresponding node system and delete the connected master node IP address.

Manage Users

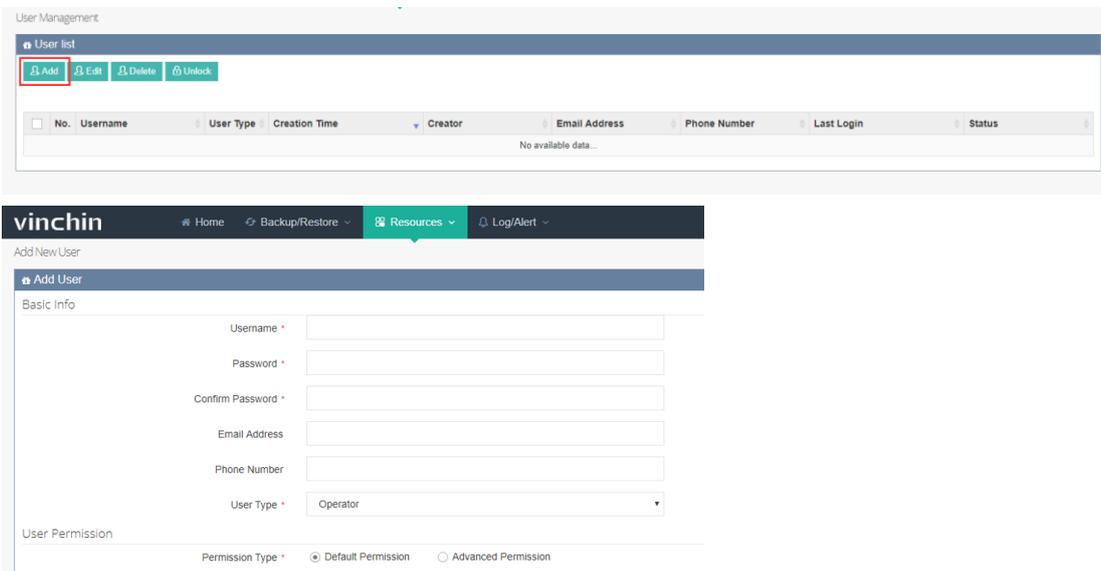
Log in your administrator account, click “Resources” → “User Management” as below:



Note: Each administrator can only manage the accounts created by himself.

Add User

Click “Add” as below you are coming to the “Add New User” page.



Fill in the blanks with required username, password and confirm password. Choose a user type and permission type for this new user, then click “OK”.

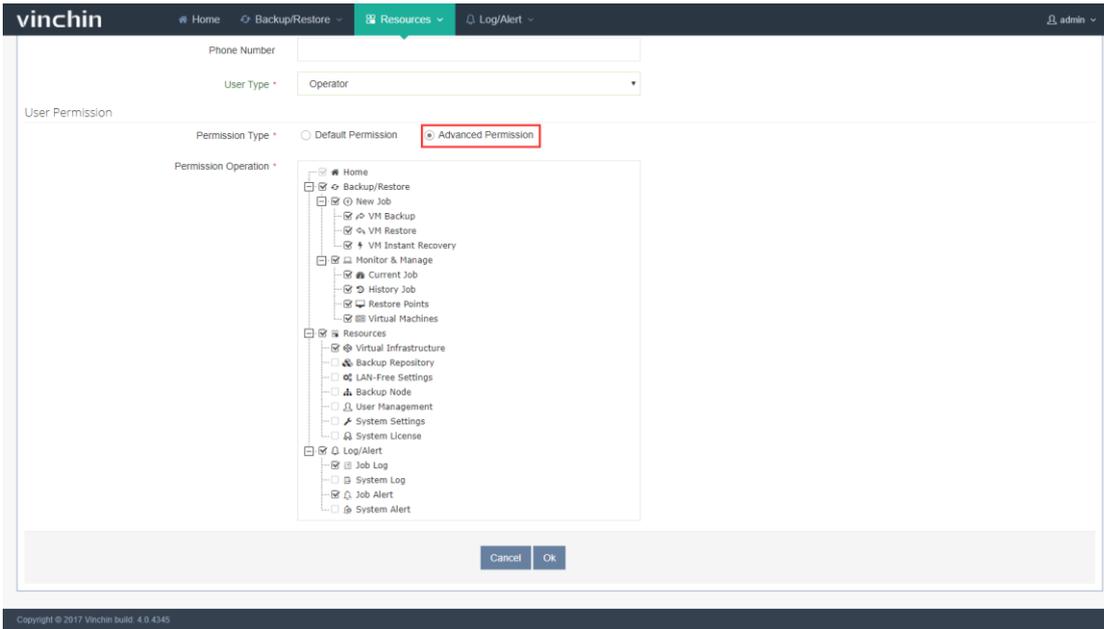
User Type includes Admin, Operator and Auditor. Default operation permissions are as below:

Operator: Create & perform Backup/Restore jobs, job monitor, logs/warnings etc.

Auditor: Check logs & warnings

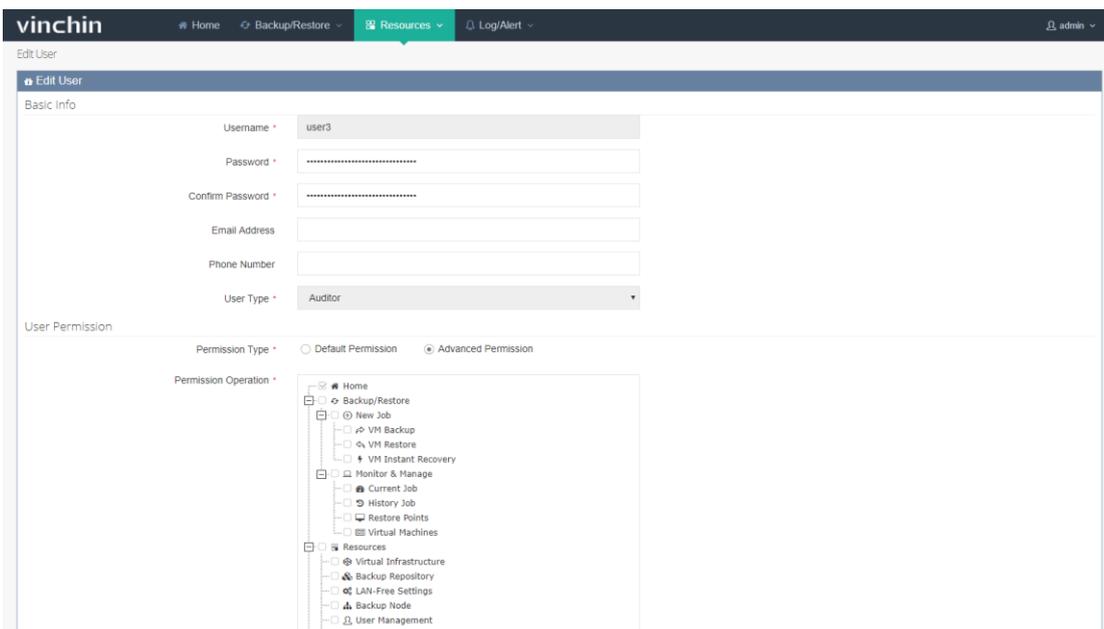
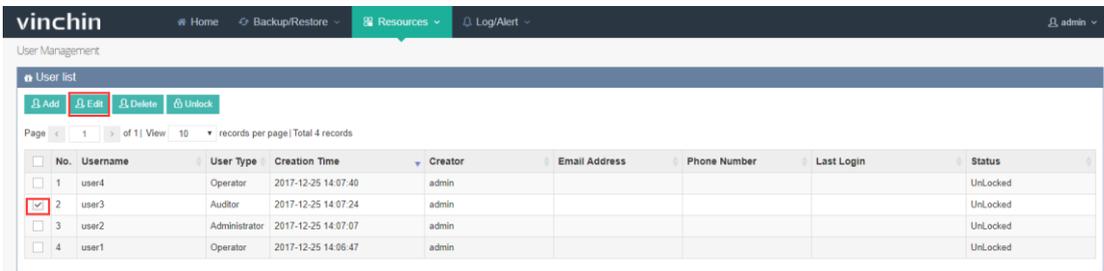
Admin: All permissions

If choosing “Advanced Permission” in the “Permission Type”, you can add or cancel any permission from the default options manually, but you cannot add a permission which is not in the default options, details as below:



Edit User

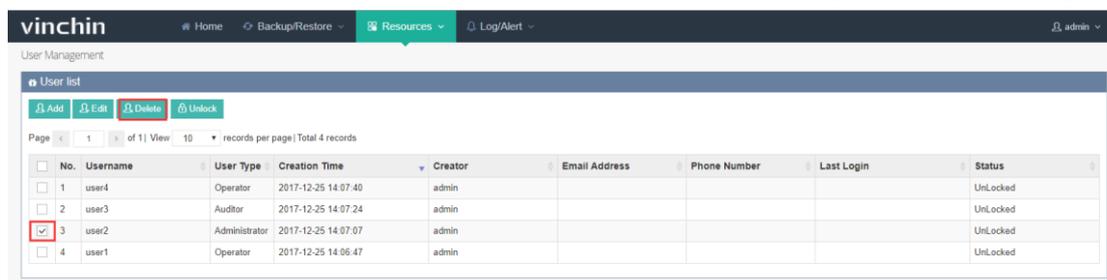
Tick a user from the User List, and click “Edit” as below you are coming to the user editing page.



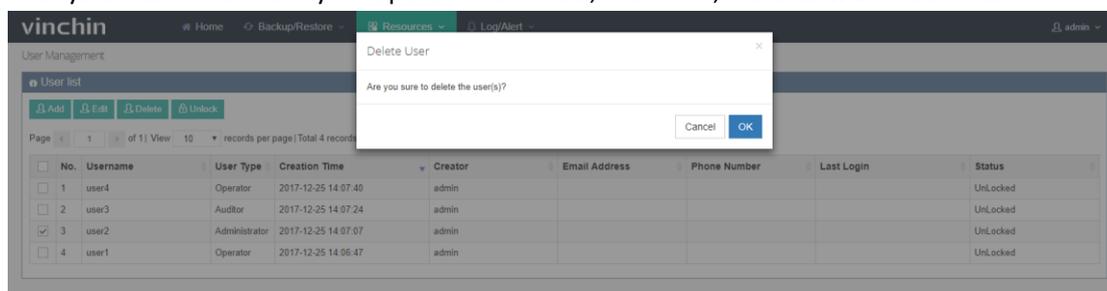
You can edit the user's information, after finish, click "OK" to save the changes.

Delete User

Tick a user from the User List, and click "Delete" as below you are coming to the user deleting page.



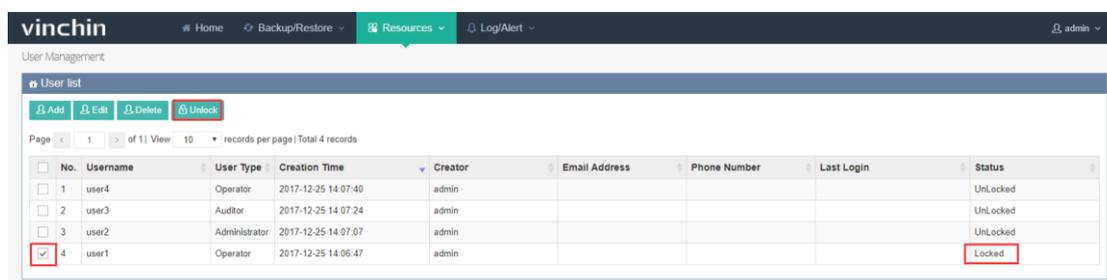
The system will re-confirm your operation as below, click "OK", the user will be deleted.



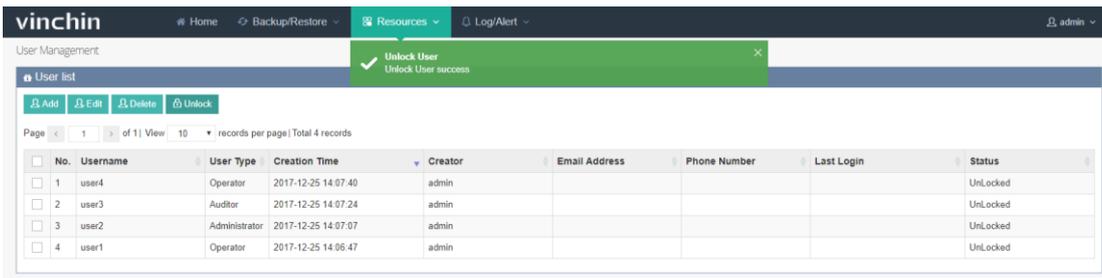
Note: Before deleting a user, you need to empty all the virtual infrastructures registered by this user. Otherwise this operation will be failed.

Unlock User

If enter wrong password for 5 times, the account will be locked. Only the Admin has the permission to unlock the account. Log in the Admin account, click "Resources" → "User Management", tick the locked user account as below:

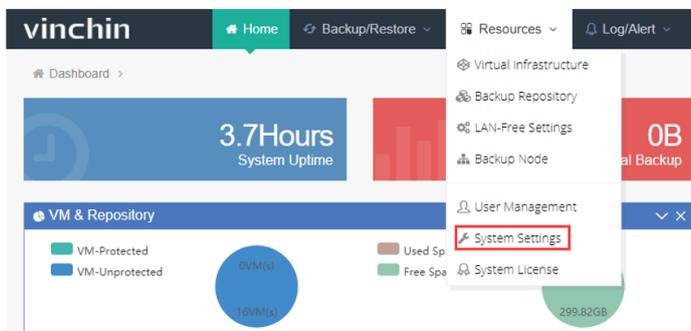


Click "Unlock" and this account will be unlocked immediately.



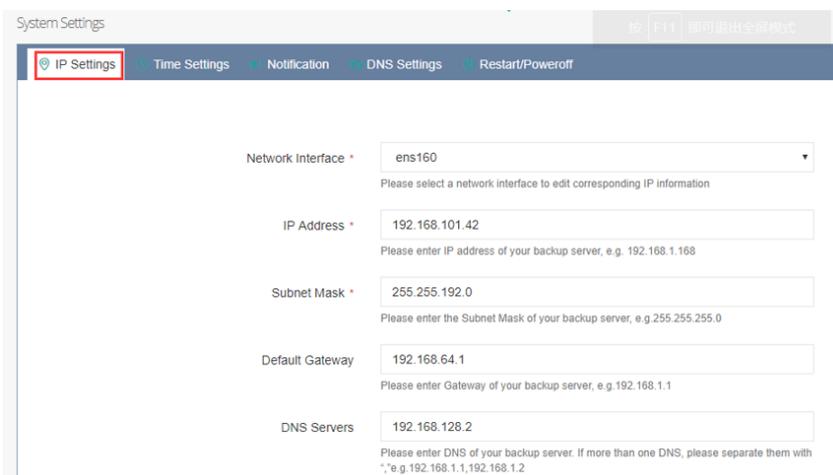
System Settings

Log in your Admin account, click “Resources” → “System Settings” as below, you are coming to the system setting page.



IP Settings

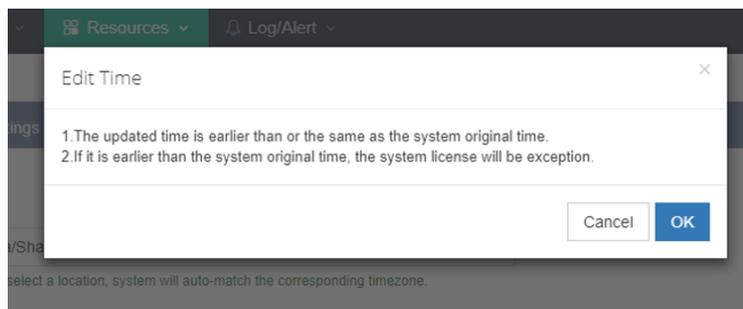
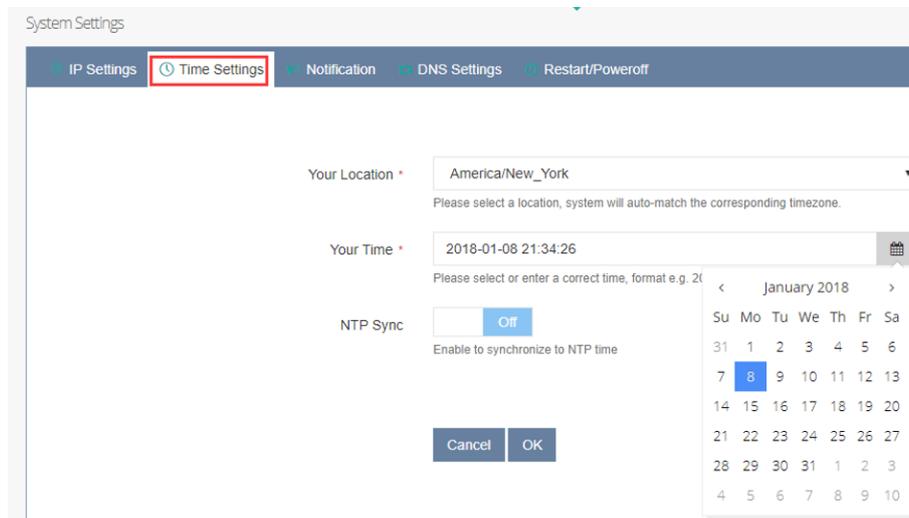
Click “IP Settings” you can set the IP information according to your actual network environment. Click “OK” to save the changes. Please make sure all the IP information are correct. Any wrong IP information will result in failure of accessing the Vinchin backup server.



Note: After changing IP address, please log out and re-access the login page by entering the new IP address.

Time Settings

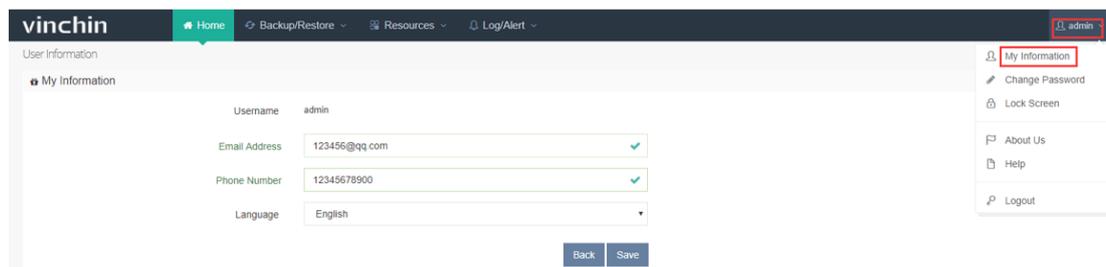
You can set the time zone, time and date according to your current location as below:



Warning: Please set the time details before licensing your backup server. Changing time details on a non-perpetual licensed Vinchin backup server will cause the license error. If error happens, you need to re-license the system with new license key.

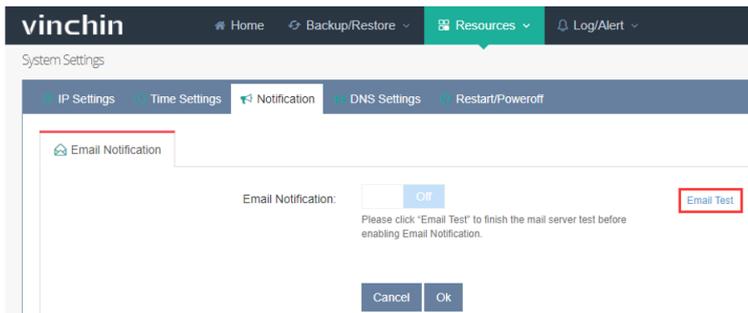
Email Notification

Email Notification helps users tracking the system operation such as job progress by email. Before enabling the email notification, you need to set the user's email address. Go to the top right "admin" → "My Information" as below:

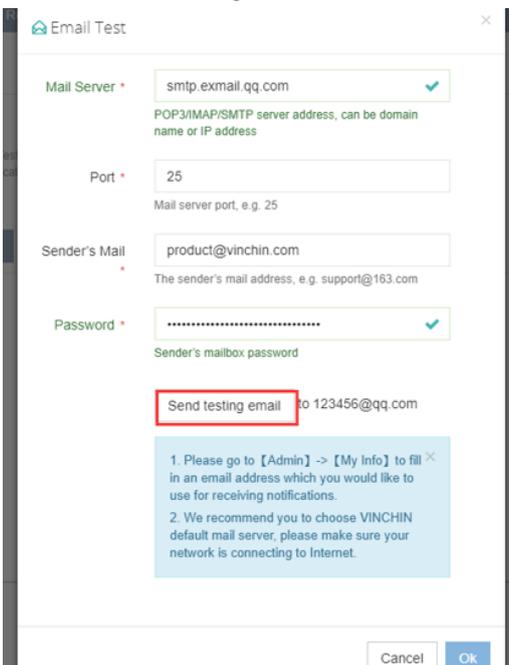


Fill in your email address and click "OK".

Then return to the "System Settings" → "Notification". And click "Email Test" as below:

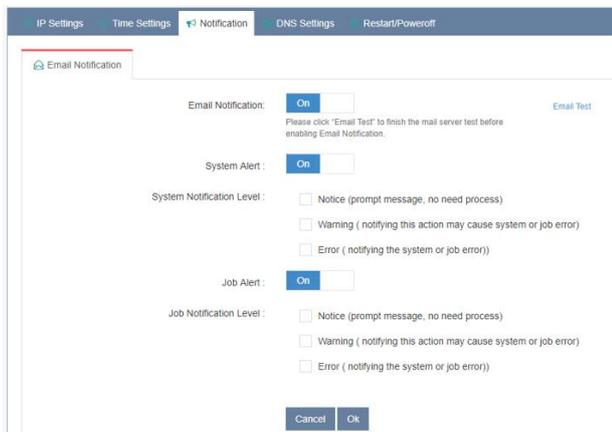


If you have your own mail server, you can change the default sender mail information to yours accordingly. We recommend you to use Vinchin sender mail server, please keep the default information and click “Send testing email”, if the sending test is succeeded, click “OK” as below:



Then click “Enable” to enable the email notification.

You can also choose to enable the system/job alert and set different system notification levels as below. System will send the corresponding notification to your email address.

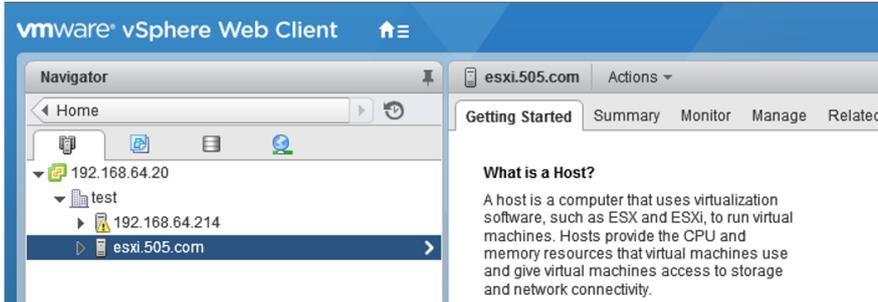


Note: Email notification is a free service. The system will automatically send notification emails to you once you

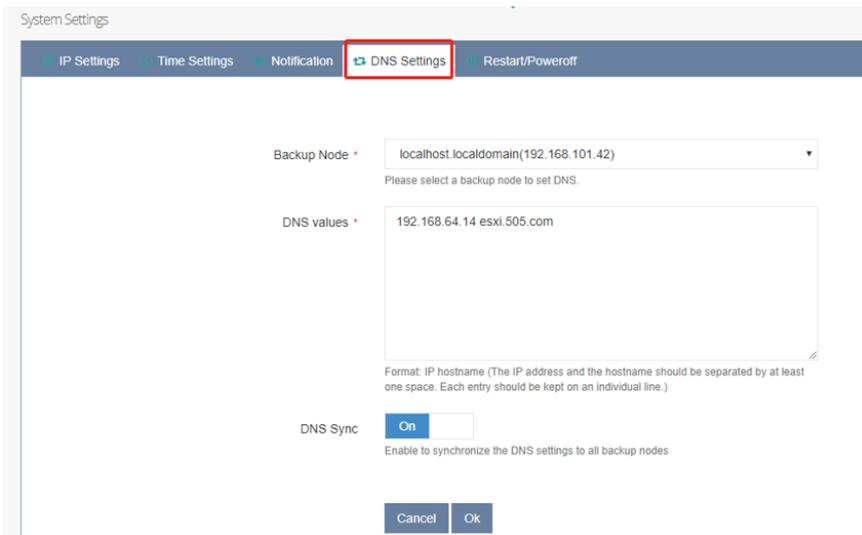
enable this function.

DNS Settings

If an ESXi host was added to the vCenter via its domain name as below, then this ESXi host's corresponding DNS need to be configured in the Vinchin backup server.



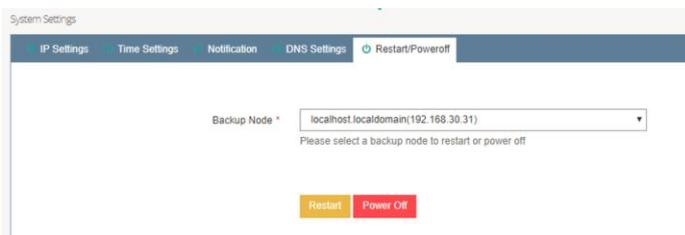
First fill in the IP address of the ESXi host and its domain name (e.g. 192.168.66.14 esxi.505.com), then click "OK" to save.



Note: If the Vinchin backup server has been deployed multiple backup nodes, please enable "DNS Sync". DNS settings is available for VMware virtual infrastructure.

Restart & Poweroff

Choose a backup node which you want to restart or power off and click corresponding button.



Backup/Restore Job

SANGFOR HCI

Install Backup Plugin

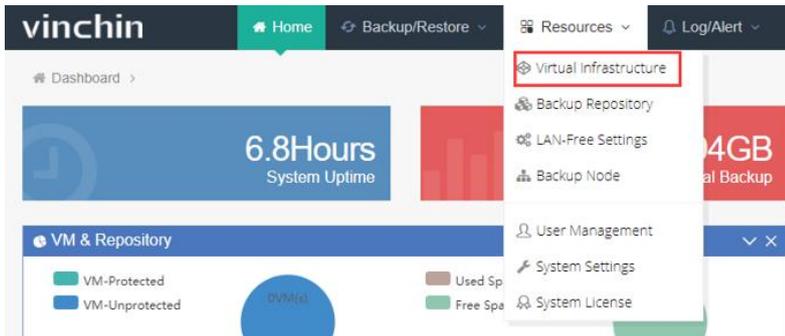
When backing up a SANGFOR HCI virtual environment, you need to install the SANGFOR HCI backup plugin in the SANGFOR hosts. Please refer to [Quick Installation Guide for SANGFOR HCI Backup](#).

Note: For cluster environment, please install the backup plugin in every SANGFOR host under this cluster environment.

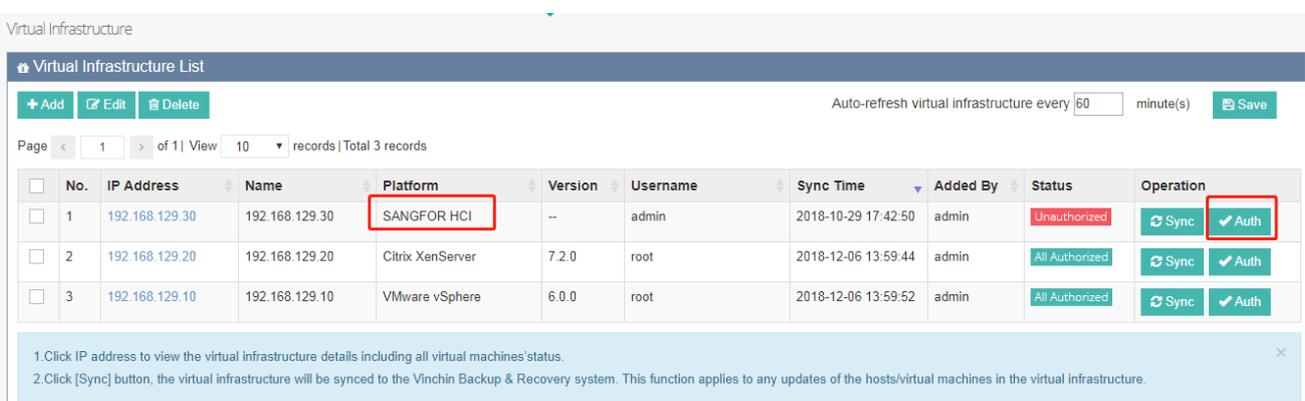
VM Backup

Authorize Host

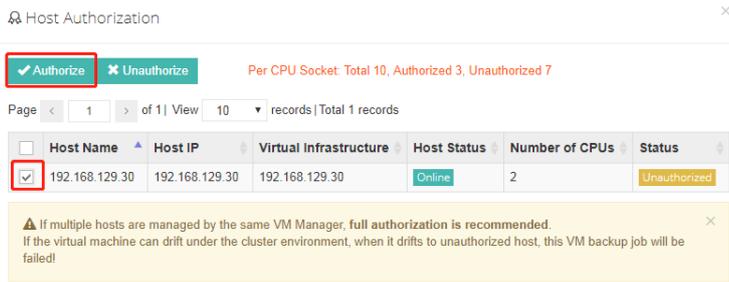
Before creating a VM backup job, you need to authorize the target hosts which you need to backup. Click “Resources” → “Virtual Infrastructure” as below:



Then you'll see the virtual infrastructure list as below, choose the target virtual infrastructure you want to backup and click “Auth”.



Tick the hosts under this virtual infrastructure you want to backup and click “Authorize”.

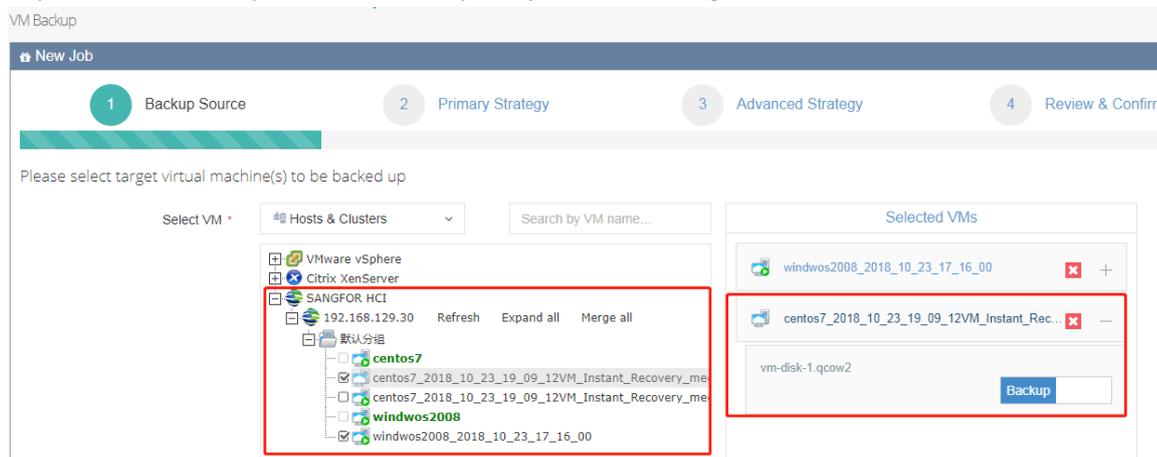


Note: If there's no server in the virtual infrastructure list, please refer to [Add Server](#) to add a host or virtual cluster first.

Create Backup Job

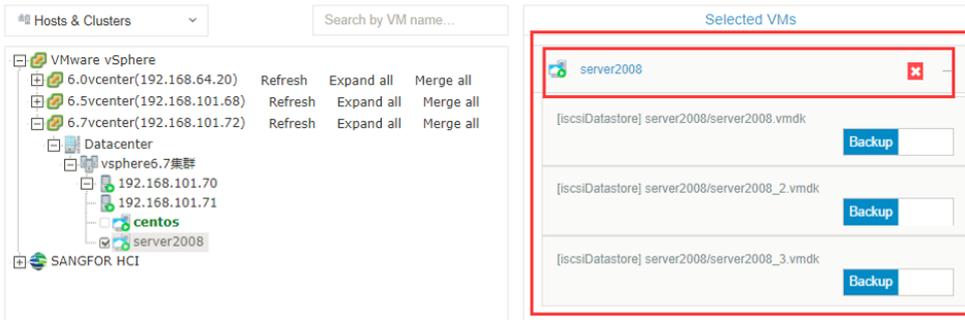
Backup Source

Select the virtual machines you want to backup. Click “Backup/Restore” → “VM Backup”, then you will see the virtualization infrastructure tree, expand the SANGFOR HCI infrastructure until you see the virtual machines. Tick any virtual machines you need to backup, they will be showing in the “Selected VM” column.

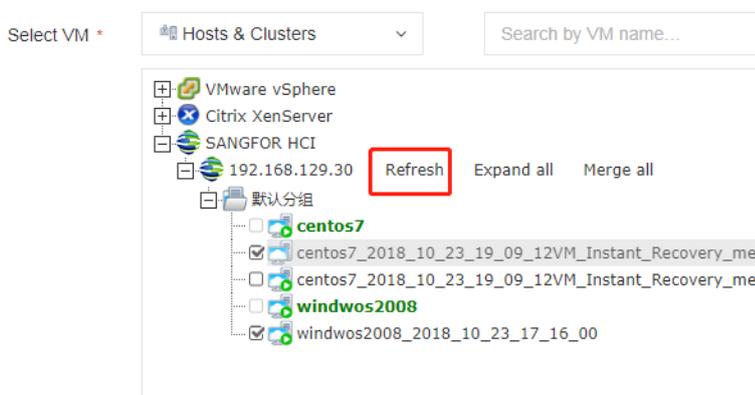


Note: If the VM already exists in the backup job list, it will be highlighted in Green color. And it is un-selectable.

Click the target VM, you can see the virtual disks under this VM, you can choose to backup or exclude any of the disks under this VM without having to back up all the disks on the virtual machine.



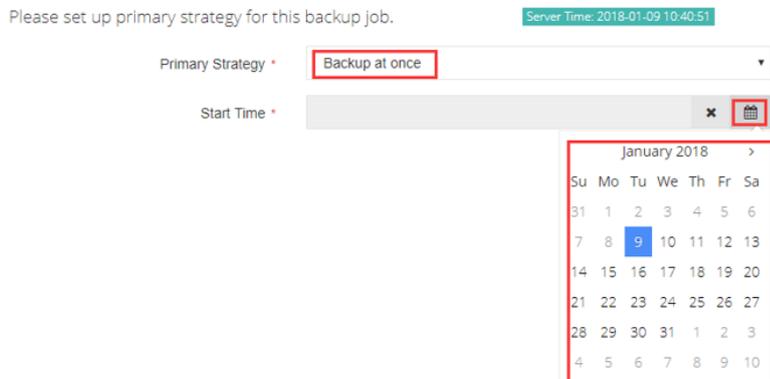
If your SANGFOR HCI infrastructure has been updated recently, you can click “Refresh” to update and sync the servers to Vinchin backup server.



Primary Strategy

Backup at Once

The backup job only performs one time. Choose “Backup at once”, then click “” to choose YY/MM/DD and HH:MM:SS, then click “Next”, the backup job will be performed at the exact time for only once.



Backup as Scheduled

The backup job repeats as scheduled. Choose “Backup as scheduled”, then choose a Backup Strategy (Full Backup/Incremental Backup/Differential Backup).

Note: Incremental and Differential cannot be chosen at the same time.

Click the selected strategy bar, set your time schedule for this backup job:

Please set up primary strategy for this backup job. Server Time: 2017-12-25 17:57:06

Primary Strategy * Backup as scheduled

Schedule * Full Backup Incremental Backup Differential Backup i

✓ Full Backup (Every Friday, 23:00:00Start, Unrepeat)

The time schedule of backup job includes 3 types: Every day, Every Week and Every Month. Every Day schedule only needs to set Start Time:

Every Day Every Week Every Month

Start Time ⊙

Repeat OFF i

Every Week schedule needs to choose which days to perform the backup job, details as below:

Every Day Every Week Every Month

Every Week Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Start Time ⊙

Repeat OFF i

Every Month schedule is similar with Every Week schedule, needs to choose which days to perform the backup job, details as below:

Every Day Every Week Every Month

Every Month 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Start Time ⊙

Repeat OFF i

Set the backup “Start Time” and choose whether to enable the “Repeat”.

✓ Full Backup (Every Day 23:00:00 Start, Unrepeat)

Every Day Every Week Every Month

Start Time ⊙

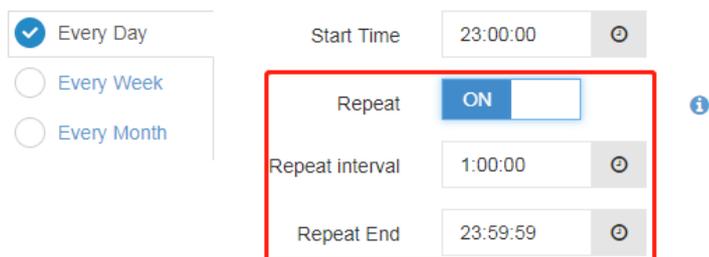
Repeat OFF i

After enabling the “Repeat” option, the system will repeatedly perform the backup job every xx hours/minutes/seconds until the repeat end time.

“Repeat” means repeatedly perform the backup job every xx hours/minutes/seconds. Once enable the “Repeat”

option, you need to set the time of “Repeat Interval” and “Repeat End” accordingly.

(Example: Choose Every Month schedule, and tick day 1 and day 15, set the Start Time as 7:00:00, and enable the “Repeat”, Repeat Interval Time 2:00:00 and Repeat End Time 21:00:00. This schedule means on 1st and 15th of each month, this backup job will start running from 7:00am, and it will repeat once every 2 hours until 9:00pm of the day.)



After finishing the settings, there will be a green ✓ in front of the schedule, it means the schedule setting is saved. Then click “Next”:

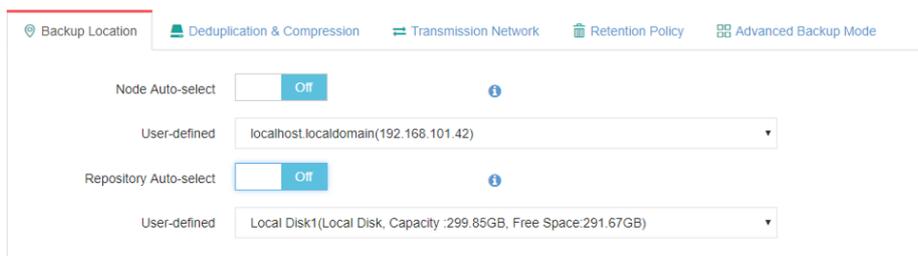
Incremental backup is backup the changes made since the last incremental backup.

Differential backup is backup the changes made since the last full backup, every new differential backup relies on the same full backup.

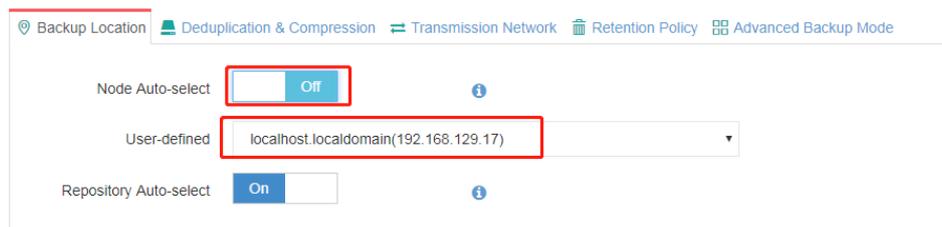
Advanced Strategy

Backup Location

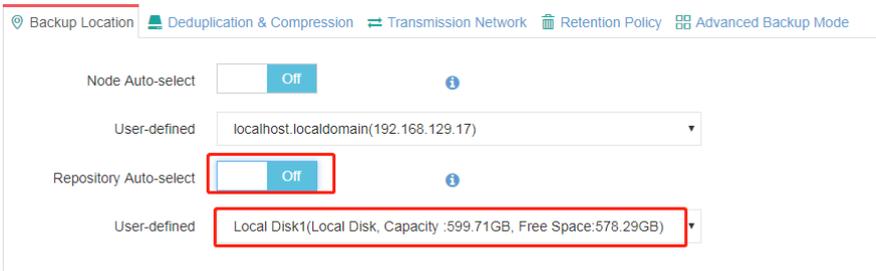
Select a repository to store the backed up data. You can enable the “auto-select”, then the backup data will be automatically stored to an optimized repository. You can disable the “auto-select” to specify a repository for the backup data.



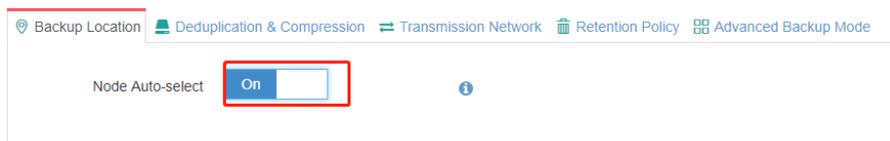
If you have added multiple backup nodes as alternative backup repository, you need to select one node first. Click the blue button to disable the “Node Auto-Select”, select one available node as below:



If you prefer to specify a backup repository under this node, disable the “Repository Auto-Select” and specify a selectable repository for this backup job.



If you prefer to let the system select the optimized repository, keep the “Node Auto-Select” or/and “Repository Auto-Select” enabled.



Deduplication & Compression

Default status of Deduplication is disabled. You can choose to enable it if you want to save your backup repository space.



Data Deduplication: Enable it to delete the duplicated data, can reduce the total backup size.

Compression: Enable it to compress the backup data size, can reduce the total backup size.

Transmission Network

Click “Transmission Network”, you can choose to enable the “Data Encryption”, the backed up data will be encrypted during transferring from the backup source to backup repository.



Retention Policy

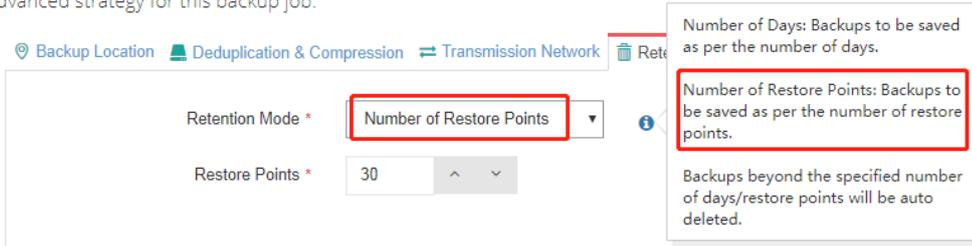
Backup retention policy is a policy to reserve backup data on disk according to number of days/restore points. Old restore points out of date/over range will be auto-deleted.

For SANGFOR HCI, the retention policy is based on full backup time points. It will lead a deletion of the furthest full backup point together with its corresponding incremental or differential backup points when a new full backup point is generated.

Retention Policy includes “Number of Restore Points” and “Number of Days”.

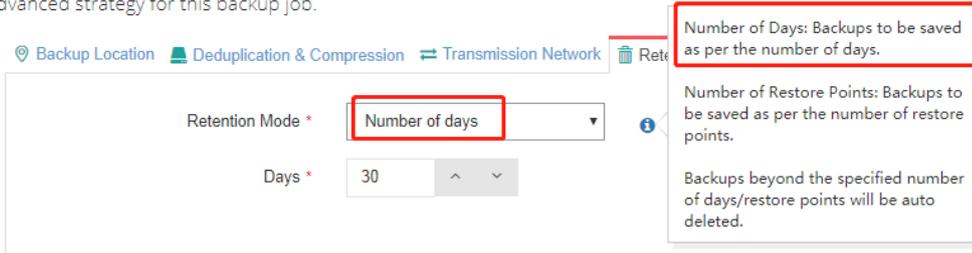
Number of Restore Points: Restore points will be reserved according to number limitation.

Please set up advanced strategy for this backup job.



Number of Days: Restore points will be reserved according to days limitation.

Please set up advanced strategy for this backup job.



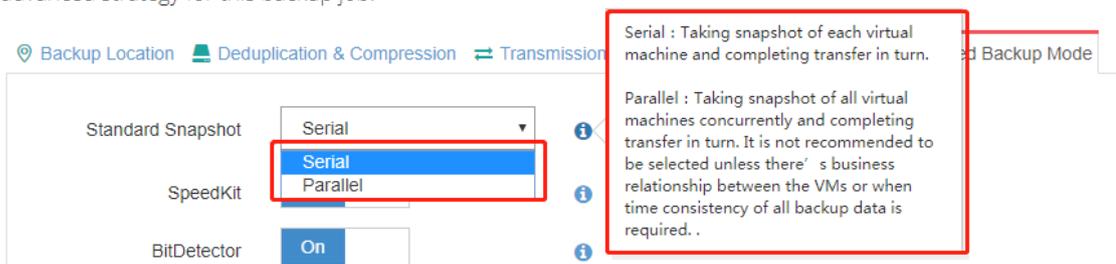
Advanced Backup Mode

Standard Snapshot (Serial snapshot / parallel snapshot)

Serial snapshot: taking snapshot of each VM in turn and complete transfer in turn.

Parallel snapshot: taking snapshot of all VMs concurrently and complete transfer in turn. It is necessarily to be chosen when there's business relationship between the VMs or backup time consistency is required of all the VMs.

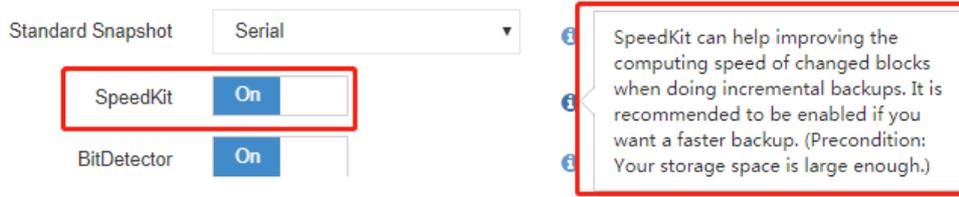
Please set up advanced strategy for this backup job.



SpeedKit

SpeedKit is a Vinchin developed technology to improve the computing speed of changed data when doing an incremental backup. Choose “SpeedKit” can help to improve backup efficiency and in case CBT does not work.

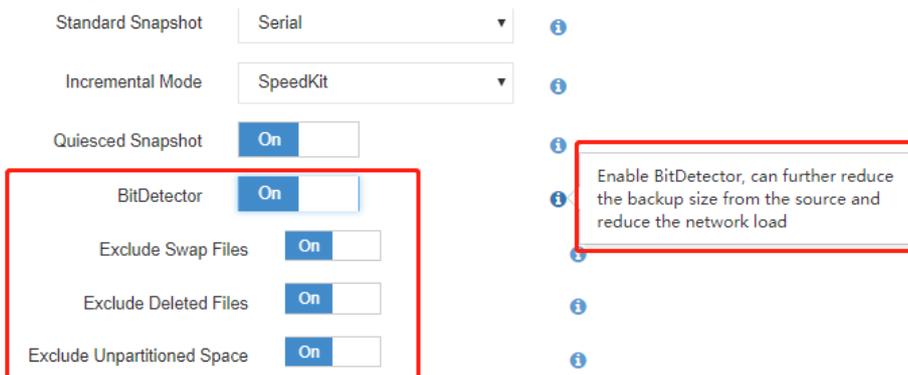
Note: Choosing “SpeedKit”, the system will remain one snapshot of each VM in the backup repository when doing incremental backup every time, so you must make sure your backup repository space is sufficient.



BitDetector

BitDetector is a vinchin technology to improve backup efficiency and save backup storage space.

Enabling “BitDetector” you can choose not to backup those swap files, deleted files and unpartitioned space which might be useless or unnecessary data for you.



Review & Confirm

After finish, you are able to review and confirm the settings. Click “Submit” if confirm, the backup job creation will be completed.

New Job

1 Backup Source 2 Primary Strategy 3 Advanced Strategy 4 Review & Confirm

Please review and confirm your configurations.

Job Name : SANGFOR HCI Backup2
Default job name could be modified.

Backup Source : 192.168.129.30默认分组/centos7_2018_10_23_19_09_12VM_Instant_Recovery_megaplusMigration
SANGFOR HCI Backup

Primary Strategy : Backup as scheduled
Backup Schedule : Full Backup (Every Friday, 23:00:00 Start, Unrepeat)

Advanced Strategy

Backup Location : Node Auto-select : ON
Deduplication & Compression : Data Deduplication : OFF
Compression: ON
Transmission Network: Data Encryption : OFF
Retention Policy : 30 days
Advanced Backup Mode: SpeedKit : ON
Standard Snapshot : Serial
BitDetector: ON
Exclude Swap Files: ON
Exclude Deleted Files: OFF
Exclude Unpartitioned Space: ON

Back Submit

Note: You can change the Job name before submitting.

Perform Backup Job

After creating a new backup job, you will see this job in the “Current Job List”.

Current Job

Job List

Page < 1 > of 1 | View 10 records | Total 4 records

Search by job name Search

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
SANGFOR HCI Backup2	SANGFOR HCI	Backup	2018-12-06 15:14:34	Pending	--	admin	Options
SANGFOR HCI Backup-Megaplus	SANGFOR HCI	Backup	2018-10-23 19:08:46	Stopped	--	admin	Options
SANGFOR HCI Backup1	SANGFOR HCI	Backup	2018-10-23 16:47:34	Stopped	--	admin	Options
VMware vSphere Backup1	VMware vSphere	Backup	2018-10-11 15:04:30	Pending	--	admin	Options

Tip: Click job name you can view the job details.

Click “+”, you can review the backup schedules of this job as below:

Job List

Page < 1 > of 1 | View 10 records | Total 4 records

Search by job name Search

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
SANGFOR HCI Backup2	SANGFOR HCI	Backup	2018-12-06 15:14:34	Pending	--	admin	Options
Schedule: Full Backup: Every Friday, 23:00:00 Start, Unrepeat Retention Policy: 30 days							
SANGFOR HCI Backup-Megaplus	SANGFOR HCI	Backup	2018-10-23 19:08:46	Stopped	--	admin	Options

Click “Options”, you will see operation options including Activate Incr.(Incremental Backup), Activate Diff.(Differential Backup), Activate Full(Full Backup) and Stop. Choose one option to start or stop the backup job.

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
SANGFOR HCI Backup2	SANGFOR HCI	Backup	2018-12-06 15:14:34	Pending	--	admin	Options
Schedule: Full Backup: Every Friday, 23:00:00 Start, Unrepeat							
Retention Policy: 30 days							
SANGFOR HCI Backup-Megaplus	SANGFOR HCI	Backup	2018-10-23 19:08:46	Stopped	--	admin	Options
SANGFOR HCI Backup1	SANGFOR HCI	Backup	2018-10-23 16:47:34	Stopped	--	admin	Options

Note: If you choose incremental backup or differential backup, the backup job will automatically change to full backup when the first time you perform it. After then the backup jobs will be repeated time by time as scheduled.

If you want to stop this backup job, click "Stop". After this job stopped, you can click "Options" again, and be able to enable schedule, activate this job, edit this job or delete this job.

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
SANGFOR HCI Backup2	SANGFOR HCI	Backup	2018-12-06 15:14:34	Stopped	--	admin	Options
SANGFOR HCI Backup-Megaplus	SANGFOR HCI	Backup	2018-10-23 19:08:46	Stopped	--	admin	Options
SANGFOR HCI Backup1	SANGFOR HCI	Backup	2018-10-23 16:47:34	Stopped	--	admin	Options
VMware vSphere Backup1	VMware vSphere	Backup	2018-10-11 15:04:30	Pending	--	admin	Options

When the job in a running status, click the job name, you will see the job running details page as below:

The screenshot shows the 'Job Details' page for a running backup job. On the left, there is a 'Job Flow' graph showing data transfer rates and a 'Job Progress' bar at 6.20%. On the right, there is a 'Basic Info' panel with the following details:

- Job Name: Redhat RHV/OvirtBackup1
- Job Type: Backup[Redhat RHV/Ovirt]
- Job Status: Running
- Total Size: 11.91GB
- Processed: 756MB
- Start Time: 2018-01-03 17:10:16
- Duration: 00:05:04
- Job finish at: 2018-01-03 17:23:01

Below the progress bar is a 'Run Log' table with the following entries:

Log Entry	Time
Transferring vm windows_server_2008's disk 'test2008_Disk1' backup data	2018-01-03 17:14:23
transferring VM\windows_server_2008\backup data	2018-01-03 17:14:23
Capturing backup repository capacity	2018-01-03 17:14:23
Finished to scan Virtual disk	2018-01-03 17:14:23
Scanning progress... 100%	2018-01-03 17:14:23

On the top right are 3 main columns showing the job configuration info as below:

Basic Info	Repository Info	Strategy Info
Job Name : Redhat RHV/OvirtBackup1 Job Type : Backup[Redhat RHV/Ovirt] Job Status : Running Total Size : 11.91GB Processed : 2.2GB Start Time : 2018-01-03 17:10:16 Duration : 00:06:22 Job finish at : 2018-01-03 17:24:01	Backup Node : localhost.localdomain 192.168.30.31 Repository : Local Disk1(Local Disk) Capacity:99.95GB, Free space:90.72GB Data Deduplication : OFF Compression : ON Speed-up Backup : ON	Creation Time : 2018-01-03 16:42:16 Next Run : 2018-01-05 23:00:00 Full Backup : Every Friday, 23:00:00Start, Unrepeat Incremental Backup : None Differential Backup : None Retention Policy : Quantity retention.Retention value is 30 Data Encryption : OFF

On the bottom left are another 3 main columns are Run Log, VM List and History Job.

Run Log: Records the current backup job running logs.

Run Log	VM List	History Job
✓ Job success		2018-11-04 23:00:08
✓ Deleting VM backup snapshot		2018-11-04 23:00:07
✓ Backup VM success		2018-11-04 23:00:07
✓ Transferring disk data		2018-11-04 23:00:06
✓ Current disk transfer mode is 'lan'		2018-11-04 23:00:06
✓ Opening remote disk'[localraid 5.4T] test centos (79.12) /test centos (79.12) -vmdk'		2018-11-04 23:00:05
✓ Backup VM configuration info		2018-11-04 23:00:03
✓ Creating snapshot for backup VM		2018-11-04 23:00:02

VM List: Shows the VM info in the current job, including VM Name, Job Type (Full Backup/Incremental Backup/Differential Backup), VM Size, Data Size, Transfer Size, Written (The real size that has been stored to the backup repository) , Speed, Progress, Status etc.

Run Log	VM List	History Job								
No.	VM Name	Job Type	VM Size	Data Size	Transfer Size	Written	Speed	Progress	Status	Description
1	test centos (129.12)	--	--	--	--	--	--	--	--	

History Job: Reviews all the history operations of this backup job.

Run Log	Current Run	History Run					
Page 1 of 1 View 10 records per page Total 3 records							
No.	Job Type	Status	Total	Processed	Backed up	Start Time	End Time
1	IncrementalBackup	Success	896KB	896KB	232.17KB	2017-12-25 16:36:20	2017-12-25 16:36:32
2	IncrementalBackup	Success	2.25MB	2.25MB	566.37KB	2017-12-25 16:35:51	2017-12-25 16:36:04
3	FullBackup	Success	13.93GB	13.93GB	7.42GB	2017-12-25 16:30:09	2017-12-25 16:35:23

Note:

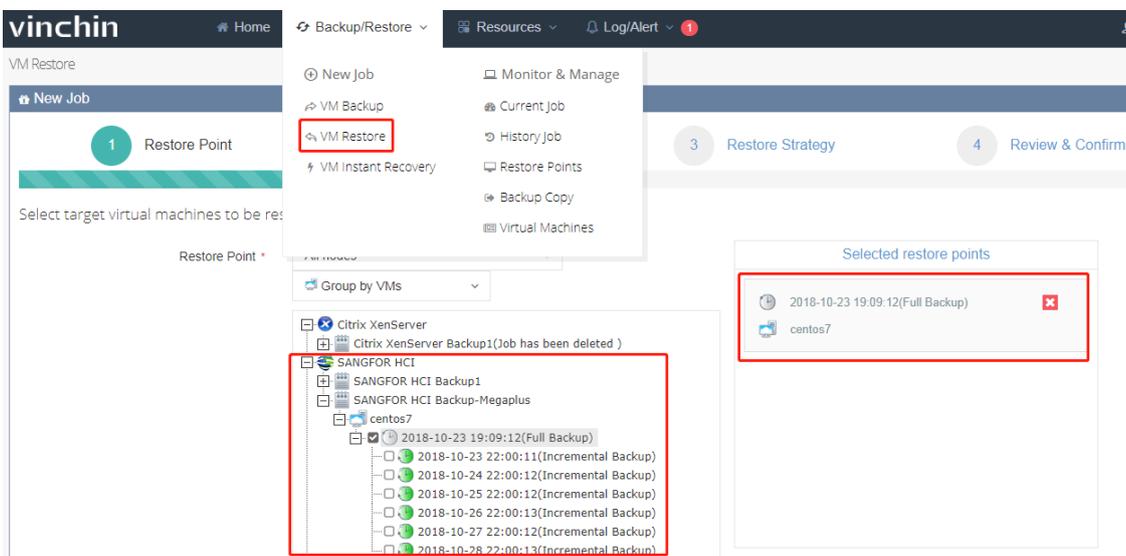
If the backup job has been set as “Backup at once”, after job running finished, you can find it in the History Job list. If the backup job has been set as “Backup as scheduled”, the job will remain in the Current Job list and continue backup job as scheduled. Once enable “Deduplication & Compression” when creating backup job, the Backup size will be reduced while the backup speed will be slower as well.

VM Restore

Create Restore Job

Restore Point

Click “Backup/Restore” → “VM Restore”, you are coming to the restore job creating page. Select a target VM restore point under the SANGFOR HCI which you want to restore as below. You can quickly find the target restore point by specifying backup node and selecting “Group by VMs” or “Group by Restore Points” accordingly.



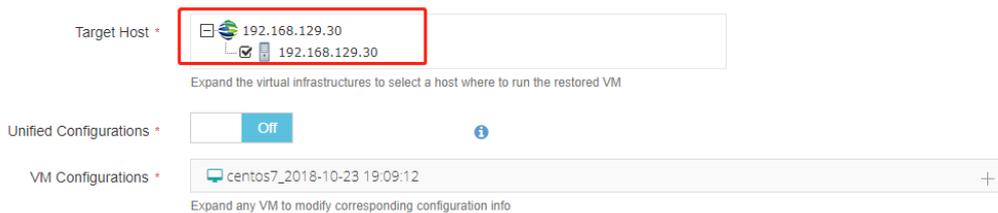
A Restore Point has been marked with the name of a backup job. Each backup job name has displayed the backup time point and backup type (full backup/incremental backup/differential backup) for users to recognize and select. Choose one restore point under each virtual machine, click “Next”.

Note: You can choose multiple virtual machines to restore at the same time. **If one virtual machine has multiple restore points, you can only choose one point to restore at once.**

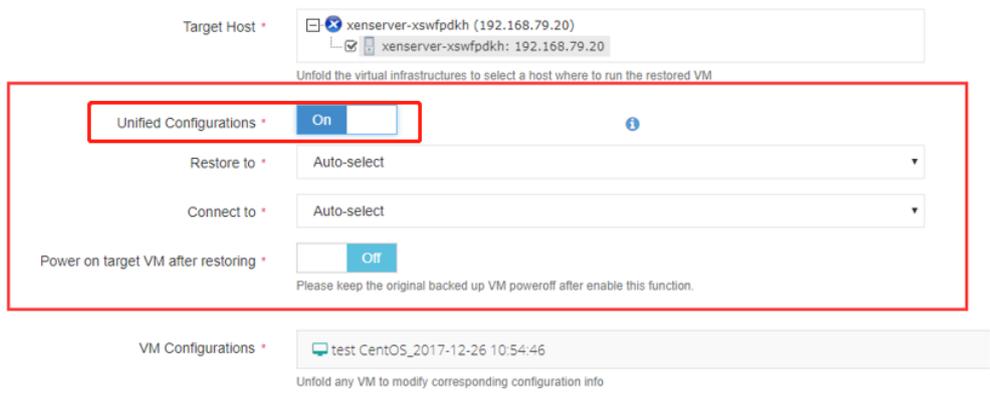
Restore Destination

Target Host: Select a target host where you want to run the restored VMs. After restored, the VMs will run on the selected host.

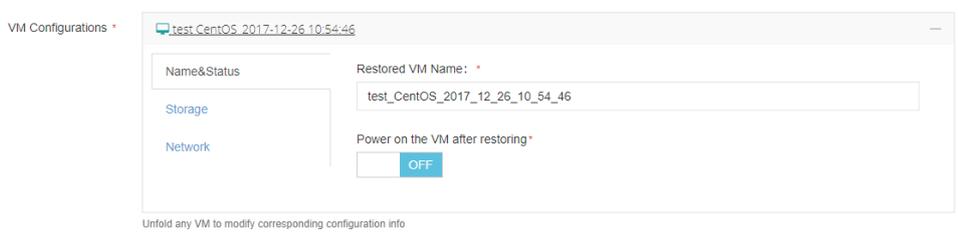
Select a host where to run the restored VMs



Unified Configurations: Enable this function you can set multiple VMs' storage, network information, and choose whether to power on the target VM(s) after restoring.



Single VM Configurations: Select a target VM, you can rename it and pre-set its storage, network information details as below:

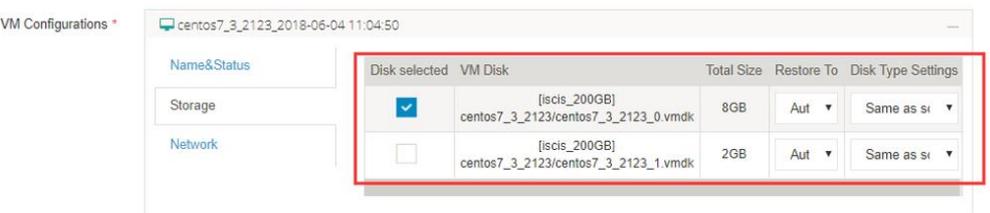


Note: When renaming the VM, make sure there's no special characters. Any combination of letters, numbers and underscore characters are recommended.



Note: You can select one more multiple virtual disks to restore by clicking “” when there are multiple disks are attached to this VM. If you don't restore the OS disk, there will be no operating system in the restored VM, you need to re-install a new operating system or mount the data disk to another VM to use.

If choose Auto-select in the “Storage”, the system will automatically choose the biggest storage space. If all the storages are out of free space, the restore job will fail, and system will remind insufficient space.



When a virtual machine has multiple disks, you can choose individual disks to restore without having to restore all the disks on the virtual machine by click “”.

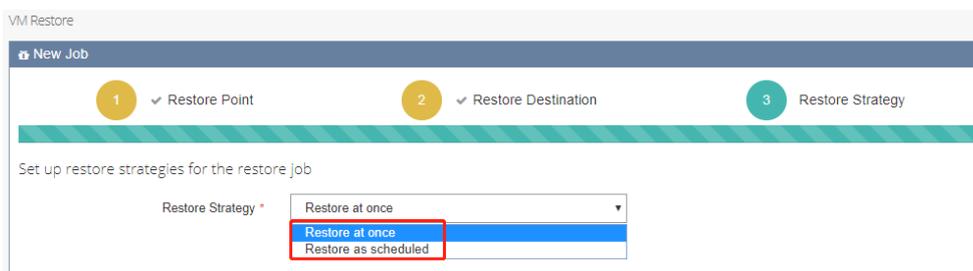
You can also choose where to connect the VM network interface to after restoring.



Warning: The SANGFOR platform does not support two VMs sharing one MAC address. Please ensure the original VM has been deleted before you tick "Remain MAC".

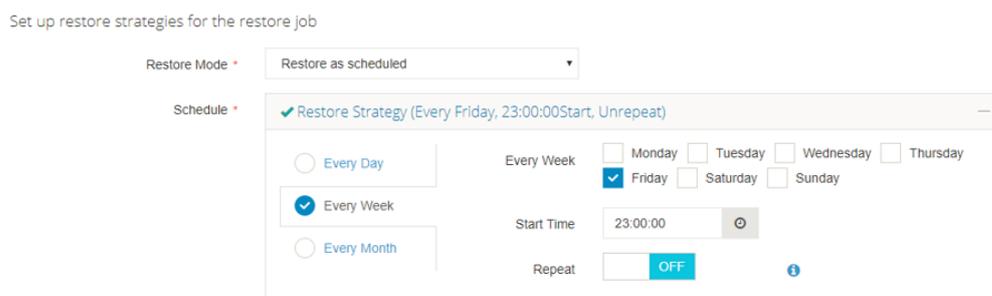
Restore Strategy

Choose "Restore at once" or "Restore as scheduled" as below:



If choosing "Restore at once", the restore job will start running after created.

If choosing "Restore as scheduled", you need to set restore schedules as below. After done, the job will run as

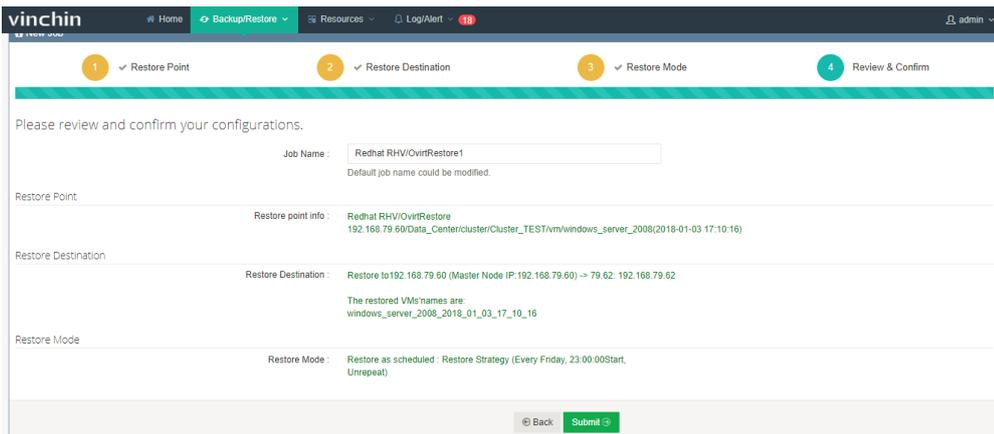


scheduled.

Note: Restore as schedule is not recommended if no special circumstances, because restoring too many VMs will occupy productive resources.

Review & Confirm

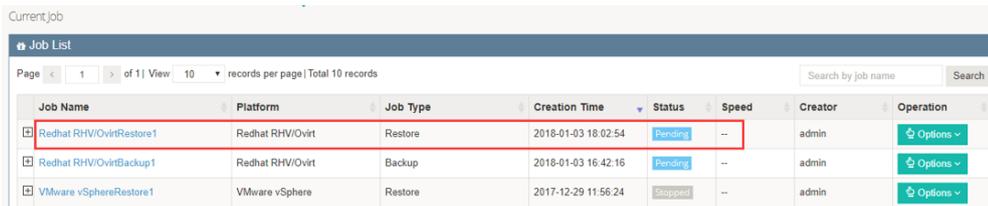
After finish, you are able to review and confirm the settings. Click "Submit" if correct, the restore job creation will be completed.



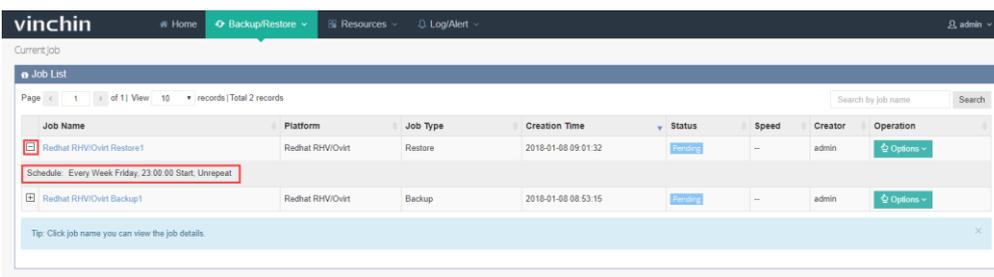
Note: You can rename the restore job. Make sure all the settings are correct before submitting. If you have chosen “Restore at once”, the restore job will start running once you submit the job.

Perform Restore Job

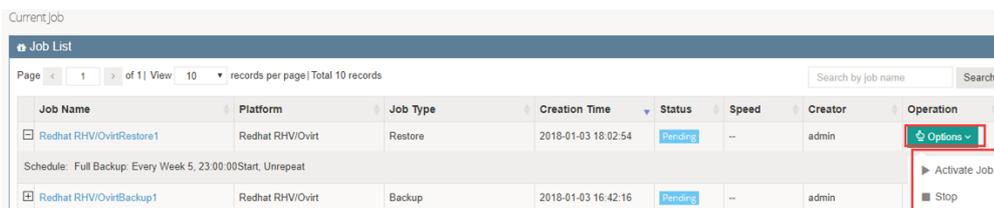
After creating a new restore job, you will see this job in the “Current Job List” as below:



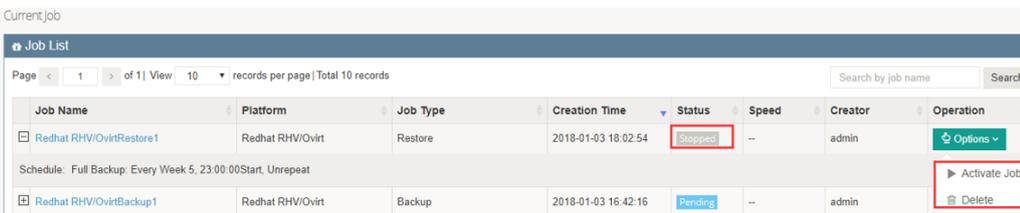
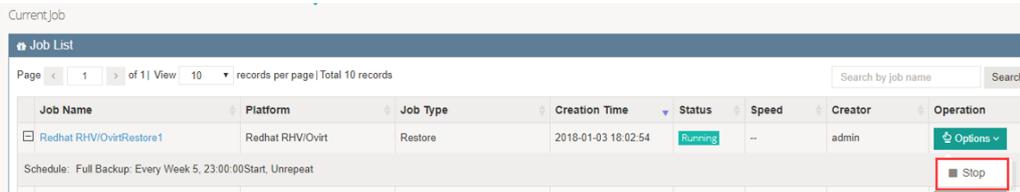
Click “+”, you can review the restore schedules of this job as below (if you have set “Restore as scheduled”).



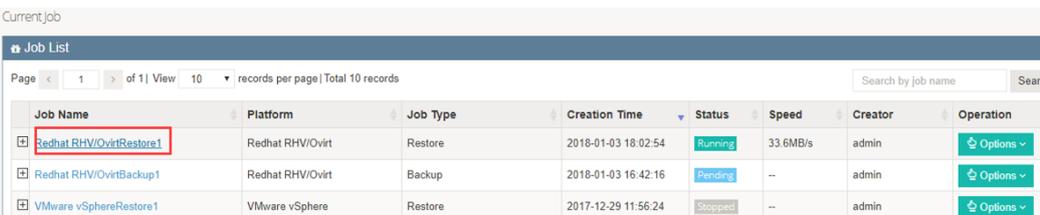
Click “Options” → “Activate job” to start the restore job.



If you want to stop this restore job, click “Stop”. Click “Options” again, you can activate or delete this job as you want.



When the job is in a running status, click the job name, you will see the job details page.



Run Log: Records the current restore job running progress.

VM List: Shows the current job details including VM Name, Job Type (Restore), VM Size, Data Size, Transfer Size, Written (The real size that has been restored), Speed(Data transfer speed), Progress(Job running progress), Status etc.

History Job: If you’ve set “Restore at once” for this restore job, this job will be auto-deleted after completing restoring and shows no data. If you’ve set “Restore as scheduled”, you can review all the history operations of this restore job.

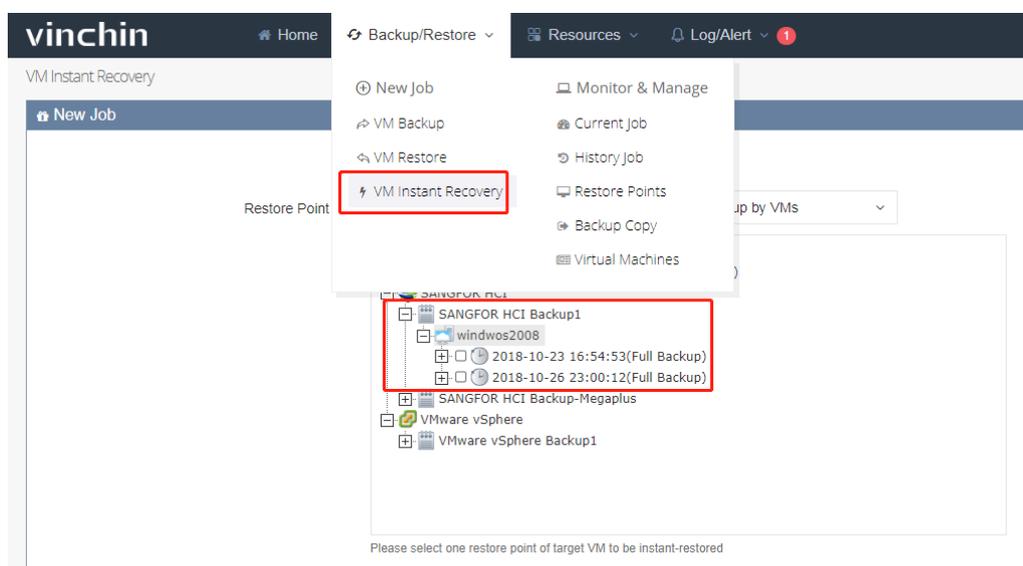
Warning: During a restore process, do not power on the VM before the restore job is completed, otherwise the VM data will be damaged or lost.

VM Instant Recovery

VM Instant Recovery helps to recover TB sized VMs in 15 secs, all business recovery in 1 min, minimized the break-off time of critical businesses. When creating a VM Instant Recovery job, make sure there's available restore point. If no, please backup target VM(s) with Vinchin Backup & Recovery system first.

Create Instant Recovery Job

Click "VM Instant Recovery" you are coming to the instant recovery new job adding page. Select a target VM restore point under the SANGFOR HCI which you want to instantly recover as below. You can quickly find the target restore point by specifying backup node and selecting "Group by VMs" or "Group by Restore Points" accordingly.



Note: You can only select one VM restore point for each instant recovery job.

Select a host as the restore destination where you want to run the instantly recovered VMs, and select the backup node IP/domain where the backup repository was mounted.



You can also preset the restored VMs' name, network connection and whether to power on the VM after restoring.

VM Configurations *

Name&Status Restored VM Name: *

Network

Power on the VM after restoring *

OFF

VM Configurations *

Name&Status

Network

VM Network Interface	MAC Address	Remain MAC	Connect To
0	fe:b5:a8:35:8c:c5	<input type="checkbox"/>	Auto-select

You can also change the job name, click "OK" you are coming to the Current Job List as below:

Current Job

Job List

Page 1 of 2 | View 10 records per page | Total 15 records

Search by job name Search

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
Redhat RHH/OvirtInstant Recovery1	Redhat RHH/Ovirt	Instant Recovery	2018-01-05 10:48:23	Pending	--	admin	Options

Operation details please refer to [VM Restore](#).

Perform Instant Recovery Job

Click "Activate" to activate the Instant Recovery job and click job name to view the job running details as below:

vinchin

Home Backup/Restore Resources Log/Alert 23 admin

Current Job

Job List

Page 1 of 2 | View 10 records per page | Total 15 records

Search by job name Search

Job Name	Platform	Job Type	Creation Time	Status	Speed	Creator	Operation
Redhat RHH/OvirtInstant Recovery1	Redhat RHH/Ovirt	Instant Recovery	2018-01-05 10:48:23	Pending	--	admin	Options
InCloud SphereInstant Recovery1	InCloud Sphere	Instant Recovery	2018-01-04 17:33:55	Running	--	admin	Activate Job
InCloud SphereRestore1	InCloud Sphere	Restore	2018-01-04 17:27:00	Pending	--	admin	Stop
InCloud SphereBackup2	InCloud Sphere	Backup	2018-01-04 17:11:01	Pending	--	admin	Options

vinchin

Home Backup/Restore Resources Log/Alert admin

job Details

VM instant recovery information



Backup Location
192.168.101.42



Restore Location: 192.168.79.20
VM Name
test_CentOS_2017_12_26_10_54_46VM_Instant_Recovery

Run Log

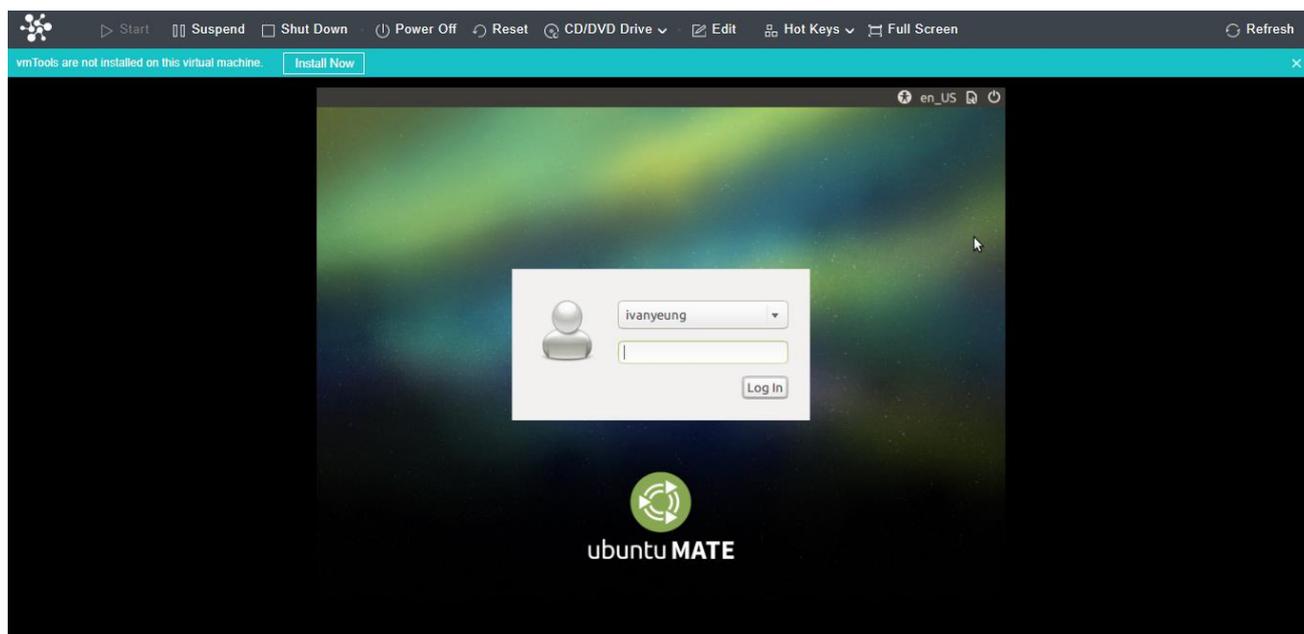
- Connecting to virtual filesystem to start instant recovery job 2017-12-26 11:38:05
- Creating instant recovery VM test_CentOS_2017_12_26_10_54_46VM_Instant_Recovery 2017-12-26 11:37:59
- Creating xenserver instant recovery repository, repository name: 'Virtual Xs Recovery File System' 2017-12-26 11:37:58
- Mounting NFS storage 2017-12-26 11:37:58
- Connecting to xenserver host, ip: '192.168.79.20' 2017-12-26 11:37:58

Copyright © 2017 Vinchin build: 4.0.4345

After the job is completed successfully, you can power on the recovered VMs.

If you have preset “power on the VM after restoring”, the VM will be powered on automatically once you activate the job in 15 seconds.

Log in to SANGFOR management platform, you can see the instantly recovered VM is created in second level, click “Console” of this vm you will see it is workable:



Warning: Do not create snapshot on the instantly recovered VM, or change any disk information. Otherwise error will occur to the VM or it will crash.

If you stop the job when it’s still running, the restored VM will be deleted. System will remind you as below:

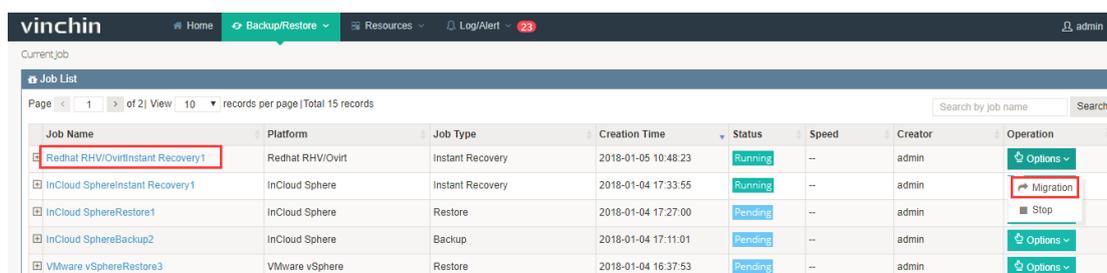


Warning: If you stop the instant recovery job, all the recovered VM information will be deleted (Including newly increased data during the instant recovery). If you need to reserve the recovered VM and its newly increased data, do not stop the job until you have migrated them to a safe place.

VM Migration

When performing instant recovery job, the VM and newly increased data can be synchronously migrated to the production area via Vinchin Backup & Recovery live-migration function without effecting the normal operation of your business.

Select a normally running instant recovery job and click “Migration” as below:



Target Host: Select a host where you want to migrate the VM to.

Target Host *

Please select a target host where to run the migrated VM.

VM Configurations *

Name&Status

Storage

Network

Migration VM Name : *

Migration Power on the VM after restoring* OFF

VM Configurations:

“Name & Status” allows you to preset the migrated VM name and whether to power on it after migrating as below:

VM Configurations *

Name&Status

Storage

Network

Migration VM Name : *

Migration Power on the VM after restoring* OFF

Note: Make sure there’s no special characters, no more than 60 characters. Any combination of letters, numbers and underscore characters are recommended.

If choose Auto-select in the “Storage”, the system will automatically choose the biggest storage space. If all the storages are out of free space, the restore job will fail, and system will remind insufficient space.

VM Configurations *

Name&Status

Storage

VM Disk	Total Size	Restore To
test CentOS 0	10GB	Auto-select

Network

The “VM network interface” belongs to the backed up VM. This setup is to band it to a destination host’s network interface.

VM Configurations *

Name&Status	VM Network Interface	MAC Address	Remain MAC	Connect To
Storage	0	fe:b5:a8:35:8c:c5	<input type="checkbox"/>	Auto-select
Network				

Note: If tick “Remain MAC”, system will remain the MAC of original backed up VM, not the MAC of instant-recovered VM.

Click “OK” to start the migration job. You can view the migration job running details in the previous instant recovery job.

vinchin Home Backup/Restore Resources Log/Alert admin

Backup Location: 192.168.101.42

Restore Location: 192.168.79.20

Restored VM name: test_CentOS_2017_12_26_10_54_46VM_Instant_Recovery

Migrated VM name: test_CentOS_2017_12_26_10_54_46VM_Instant_RecoveryMigration

Job Progress: 19.88%

Run Log: Basic Info VM List

- Opening virtual disk 'test_CentOS_0_2017-12-26 11:46:33' 2017-12-26 11:46:41
- Migrating restore point data 2017-12-26 11:46:40
- Creating VM 'test_CentOS_2017_12_26_10_54_46VM_Instant_RecoveryMigration' 2017-12-26 11:46:33
- Capturing migration job size 2017-12-26 11:46:33
- Loading live migration job configuration information 2017-12-26 11:46:33

Copyright © 2017 Vinchin build: 4.9-4345

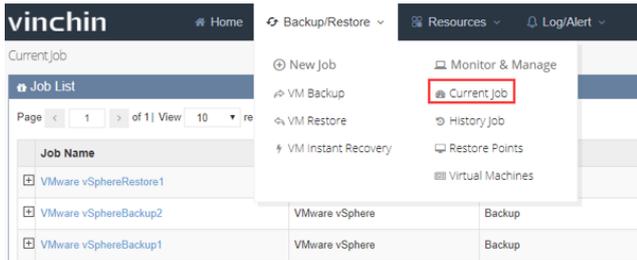
After migration completed, the migration job will automatically change back to “Instant Recovery Job” and this job is still in a running status. But the VM in this job is powered off and the business will be taken over by the migrated VM.

Warning: Do not power on the VM when it is being migrated, otherwise the VM will be damaged.

Monitor & Manage

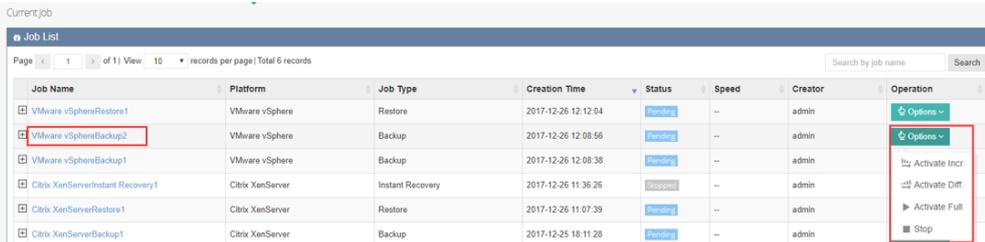
Current Job

After creating a new job (backup/restore), you can view and manage the new created job in the current job page. All the basic information and status of the job will be shown in the current job list. You can activate, stop or delete the job accordingly. Click “Backup /Restore” → “Current Job”.

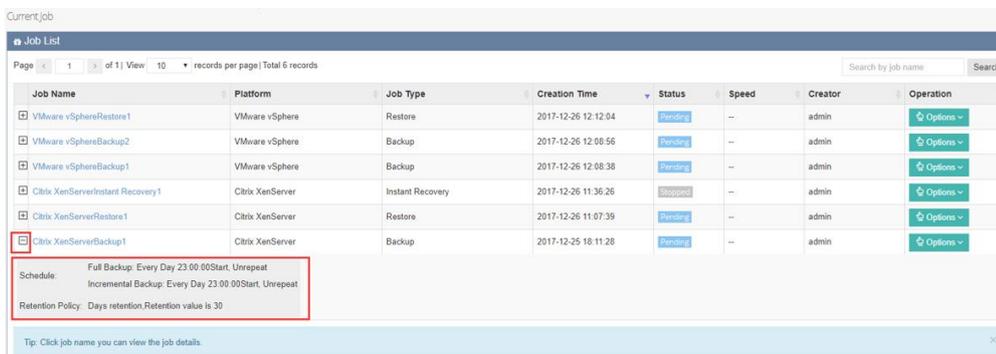


You can search the certain job by entering job name in the right top search bar.

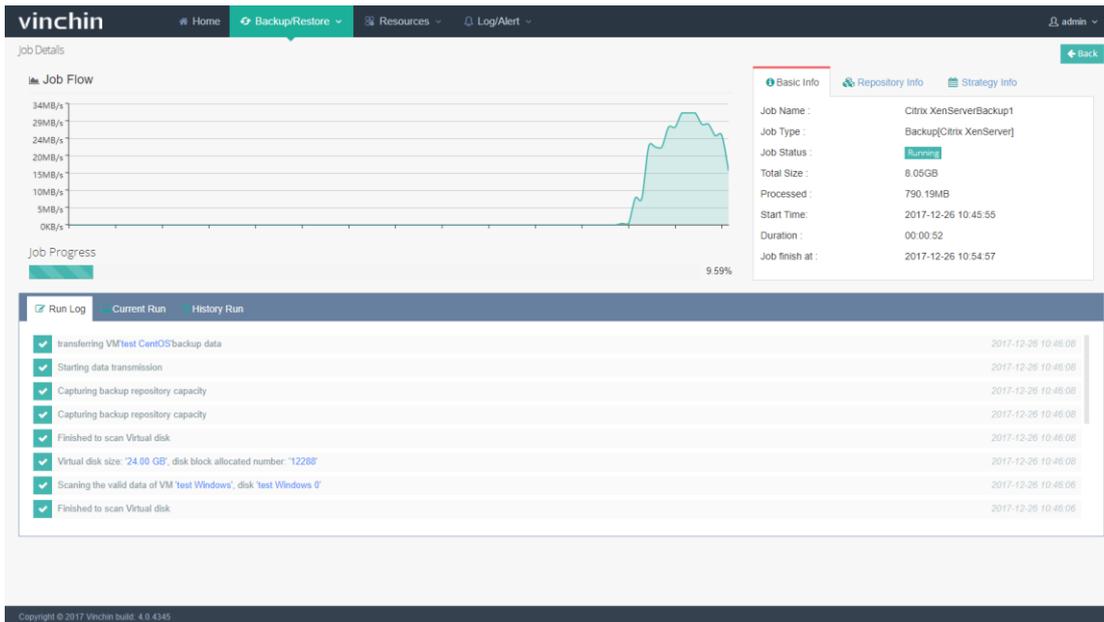
Click “Options” to activate or stop the certain job.



Click “+”, you can review the backup schedules of this job.



Click the job name, you will see the job running details page as below:



In the job running page, you can check the job current running details, as well as job history running details.

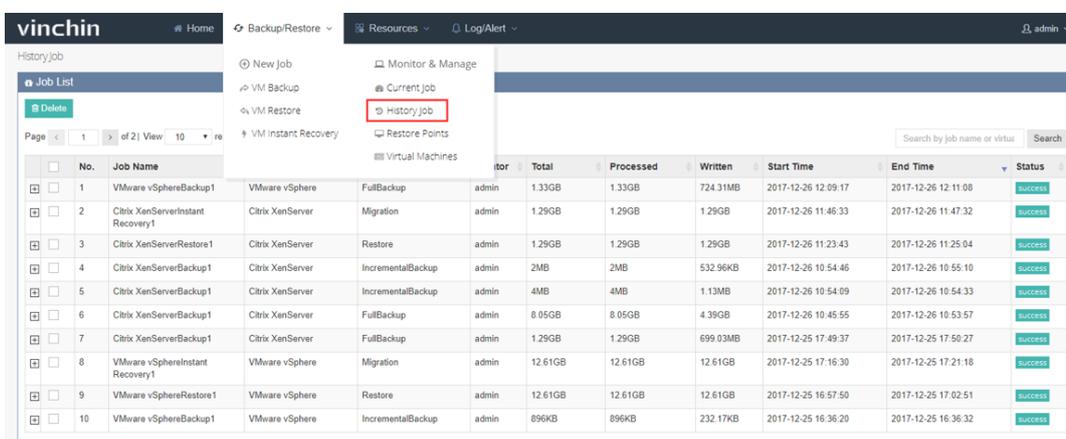
Click the top right “Back”, you can go back to the current job list.

If you preset the job as run at once, it will disappear from the current job list and system will remind you the job has been finished. You can find it from the History Job page.

If you preset the job as run as scheduled, it will stay in the current job list when first time job finished, and waiting for next run automatically.

History Job

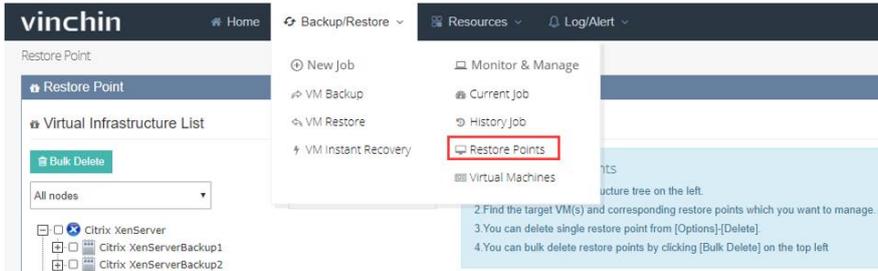
Click “Backup/Restore” → “History Job”, you are coming to the history job page. All the performed jobs will be listed here for you to review the history job running details and status. You can also delete any of the history jobs when necessary.



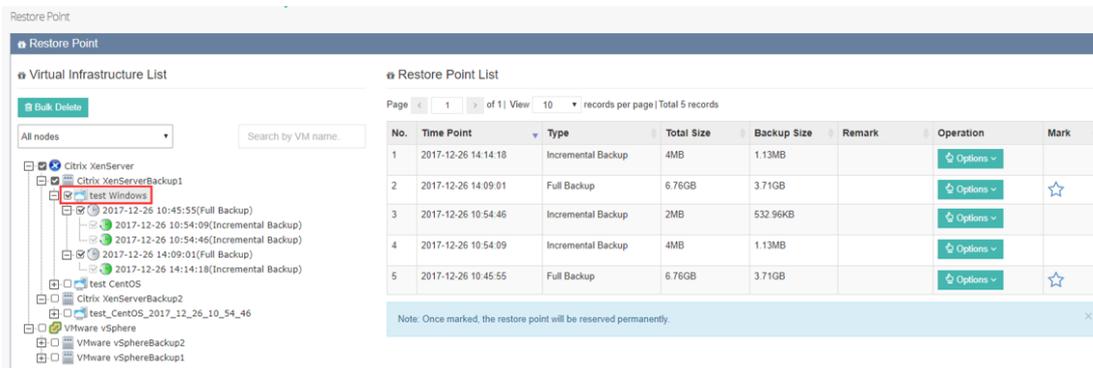
Note: If you delete any history job from the history job page, it will also be deleted from homepage history job list.

Restore Points

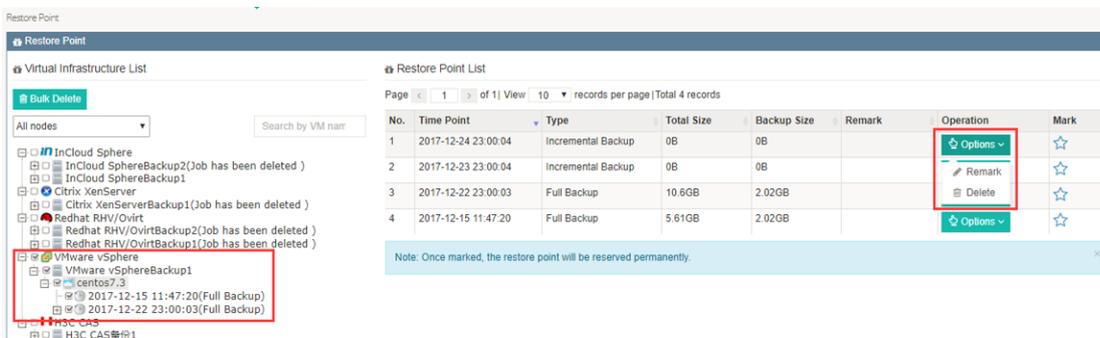
After finishing a backup job successfully, you can view and manage the corresponding restore point from “Backup/Restore” → “Restore Points”.



Expand the virtual infrastructure tree, find the target VM you have backed up and click on it, you will see all the restore points of this VM are listed in the right side of the page.

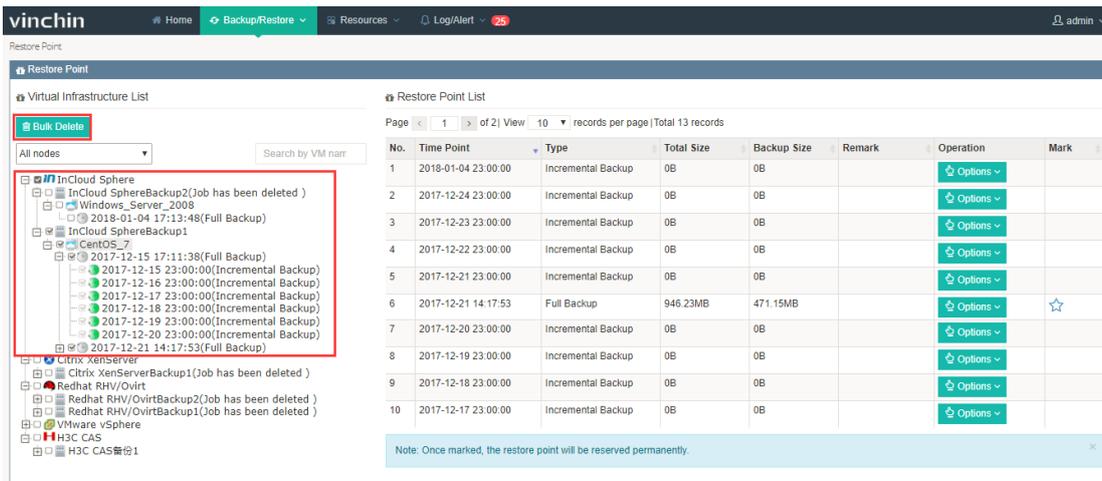


Click “Options” under Operation, you will be able to remark or delete the point.



If you want to bulk delete multiple points, you can first select target points from the left tree, and click “Bulk

Delete”.



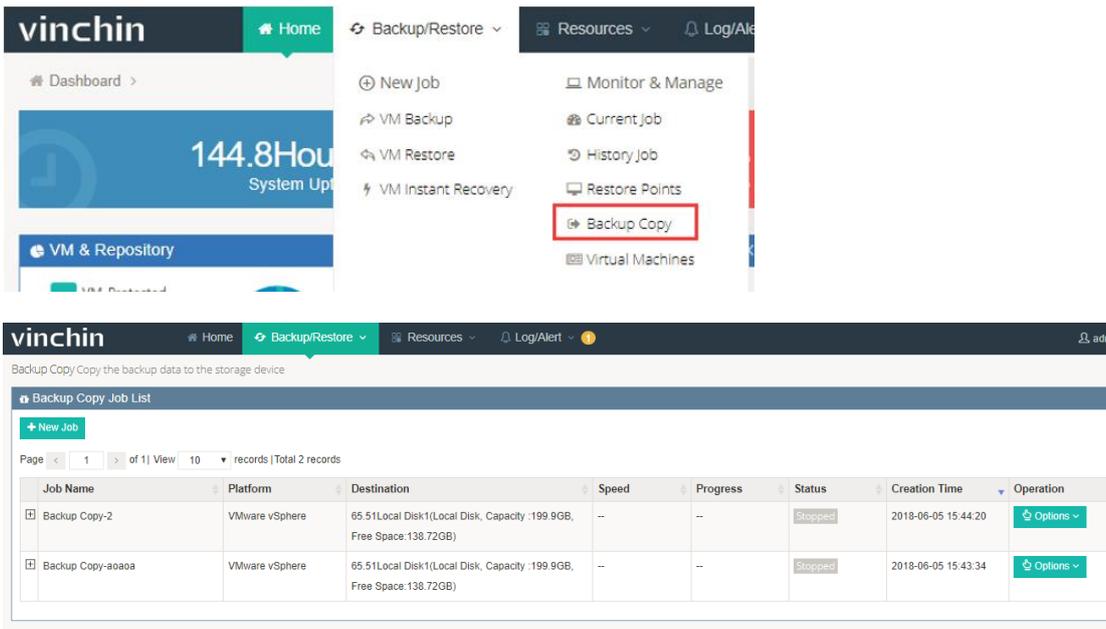
Note:

- Once deleted, the restore point is not recoverable.
- If you want to reserve the restore point, you can mark it, it will not be auto-deleted due to retention policy.
- For XenServer, RedHat RHV/Ovirt, Sangfor HCI, Openstack only full backup restore point can be marked.
- For VMware, you can mark full backup, incremental backup and differential backup restore point.
- To delete a restore point:
 - ❖ For VMware, to delete a full backup restore point, you need to delete corresponding incremental backup or differential backup restore point.
 - ❖ For XenServer, RedHat RHV/Ovirt, Openstack and Sangfor HCI when deleting full backup restore point, corresponding incremental backup or differential backup restore point will be deleted together with full backup restore point.
- Retention Policy for restore points:
 - ❖ For VMware, when activating retention policy, the incremental restore points will be merged first, after the incremental points are merged or deleted, the full backup point will be auto-deleted due to retention policy.
 - ❖ For XenServer, RedHat RHV/Ovirt, Openstack and Sangfor HCI, retention policy will delete full backup restore points accordingly, when deleting full backup restore points, corresponding incremental and differential backup restore points will be deleted together.

Backup Copy (For VMware Only)

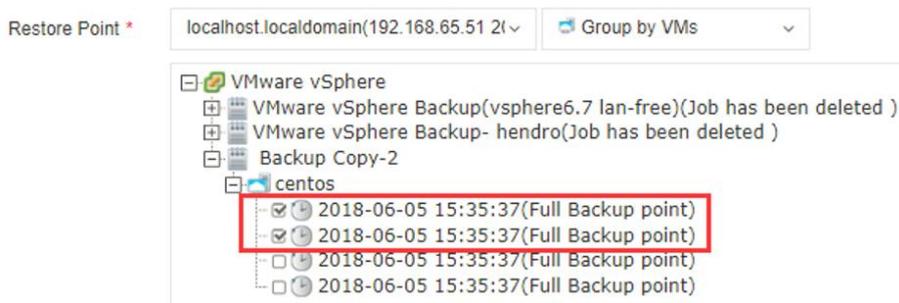
Backup copy allows you to copy the restore points to another storage (either in the same host or a different host locally). To further improve the security of backup data.

Click “Backup Copy” as below, you are coming to the Backup Copy Job List page.



Click “New Job” to create a Backup Copy job.

Restore Point: Select the target restore points which you want to copy.

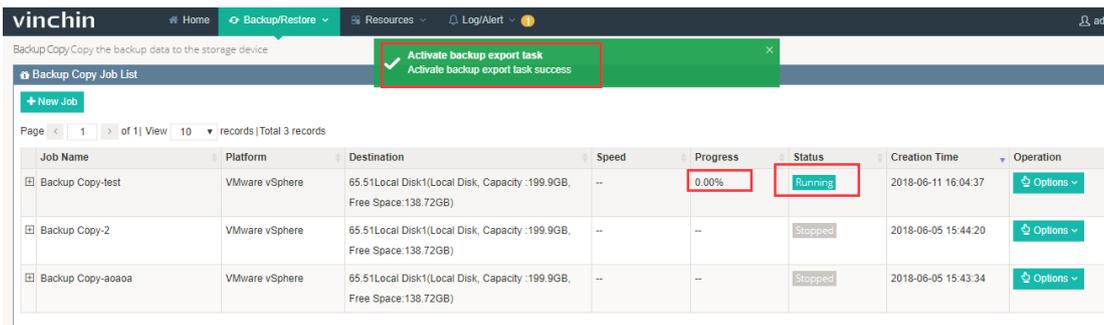
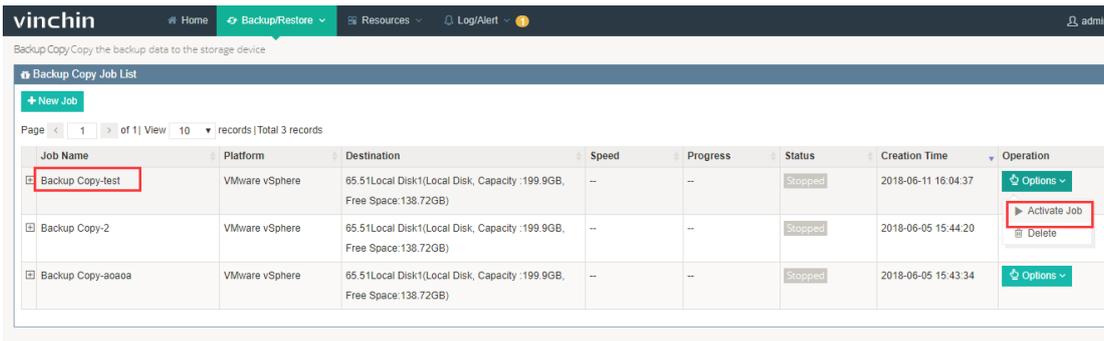


Copy to destination storage: Select a destination storage where you want to store the backup copy.



You can rename the job.

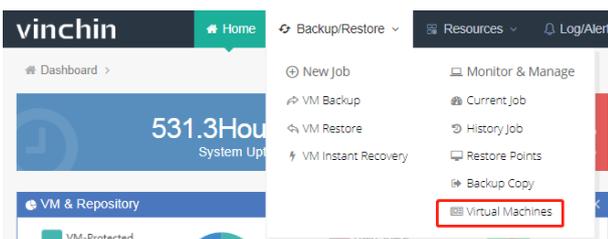
After job is created, click “Activate Job” to start copy your backups.



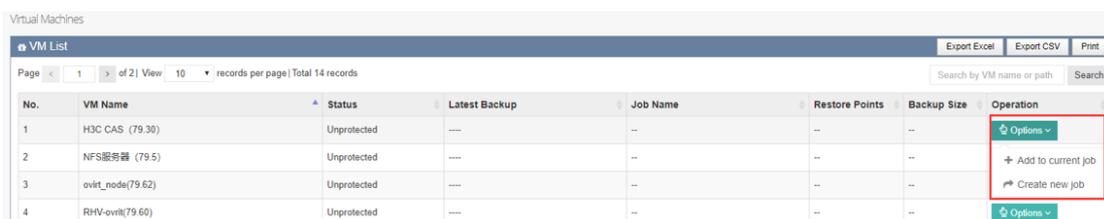
The backup data will be copied to the destination storage in 1-2 seconds. After finish, you can find the copy data from the storage.

Virtual Machines

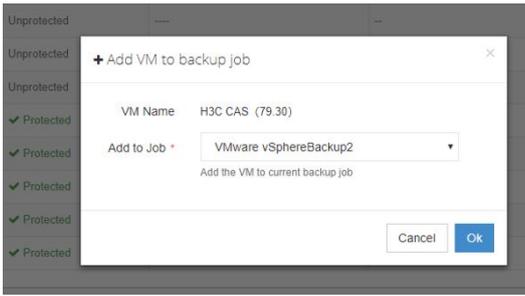
In the Virtual Machines page, you can view all the VMs status you added into Vinchin backup server from “Virtual Infrastructure”. Click “Backup/Restore” → “Virtual Machines” you are coming to the VM page.



You can manage the unprotected VMs, click “Options” under Operation, you can choose to add the VM to a current running backup job, or choose to create a new backup job for this VM.



Click “Add to current job”, you can choose a current backup job to add the target VM in as below:



Click “Create new job” you can create a new backup job for the target VM.

Log/Alert

Job Log

Click “Log/Alert” → “Job Log”, you are coming to the job log page, here has listed all the job logs details including job running status, time and description etc. as below:

No.	Job Name	Platform	Job Type	User	Time	Status	Description
1	Citrix XenServerBackup2	Citrix XenServer	Backup	admin	2017-12-26 12:18:49	Normal	Job 'Citrix XenServerBackup2' has been created
2	VMware vSphereRestore1	VMware vSphere	Restore	admin	2017-12-26 12:12:04	Normal	Job 'VMware vSphereRestore1' has been created
3	VMware vSphereBackup2	VMware vSphere	Backup	admin	2017-12-26 12:08:56	Normal	Job 'VMware vSphereBackup2' has been created
4	VMware vSphereBackup1	VMware vSphere	Backup	admin	2017-12-26 12:08:38	Normal	Job 'VMware vSphereBackup1' has been created
5	Citrix XenServerInstant Recovery1	Citrix XenServer	Instant Recovery	admin	2017-12-26 11:36:26	Normal	Job 'Citrix XenServerInstant Recovery1' has been created
6	Citrix XenServerRestore1	Citrix XenServer	Restore	admin	2017-12-26 11:22:54	Normal	Job 'Citrix XenServerRestore1' has been stopped
7	Citrix XenServerRestore1	Citrix XenServer	Restore	admin	2017-12-26 11:07:39	Normal	Job 'Citrix XenServerRestore1' has been created
8	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:44:20	Normal	Job ' Backup as scheduled has been enabled
9	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:43:16	Normal	Job 'Citrix XenServerBackup1' has been stopped
10	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:40:04	Normal	Job ' Backup as scheduled has been enabled

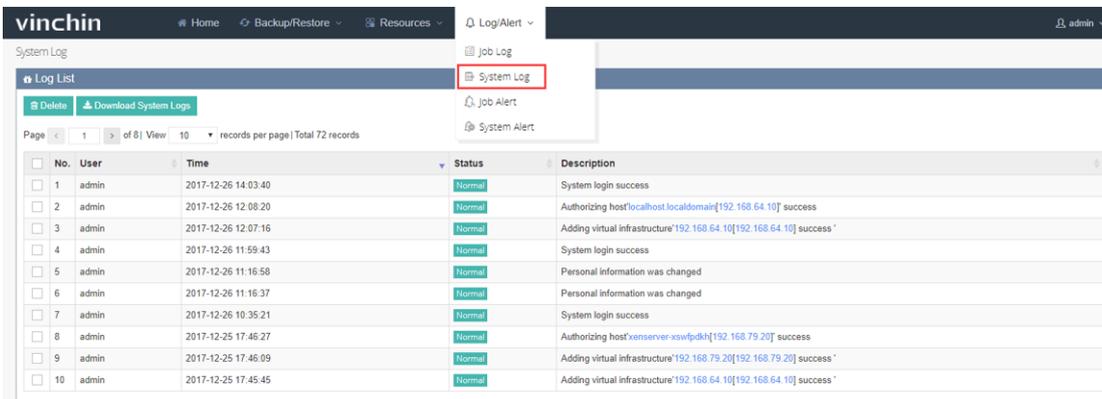
You can search a certain job to delete by entering the job name via the top right search bar as below:

No.	Job Name	Platform	Job Type	User	Time	Status	Description	
<input checked="" type="checkbox"/>	1	Citrix XenServerBackup2	Citrix XenServer	Backup	admin	2017-12-26 12:18:49	Normal	Job 'Citrix XenServerBackup2' has been created
<input checked="" type="checkbox"/>	2	VMware vSphereRestore1	VMware vSphere	Restore	admin	2017-12-26 12:12:04	Normal	Job 'VMware vSphereRestore1' has been created
<input checked="" type="checkbox"/>	3	VMware vSphereBackup2	VMware vSphere	Backup	admin	2017-12-26 12:08:56	Normal	Job 'VMware vSphereBackup2' has been created
<input type="checkbox"/>	4	VMware vSphereBackup1	VMware vSphere	Backup	admin	2017-12-26 12:08:38	Normal	Job 'VMware vSphereBackup1' has been created
<input type="checkbox"/>	5	Citrix XenServerInstant Recovery1	Citrix XenServer	Instant Recovery	admin	2017-12-26 11:36:26	Normal	Job 'Citrix XenServerInstant Recovery1' has been created
<input type="checkbox"/>	6	Citrix XenServerRestore1	Citrix XenServer	Restore	admin	2017-12-26 11:22:54	Normal	Job 'Citrix XenServerRestore1' has been stopped
<input type="checkbox"/>	7	Citrix XenServerRestore1	Citrix XenServer	Restore	admin	2017-12-26 11:07:39	Normal	Job 'Citrix XenServerRestore1' has been created
<input type="checkbox"/>	8	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:44:20	Normal	Job ' Backup as scheduled has been enabled
<input type="checkbox"/>	9	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:43:16	Normal	Job 'Citrix XenServerBackup1' has been stopped
<input type="checkbox"/>	10	Citrix XenServerBackup1	Citrix XenServer	Backup	admin	2017-12-26 10:40:04	Normal	Job ' Backup as scheduled has been enabled

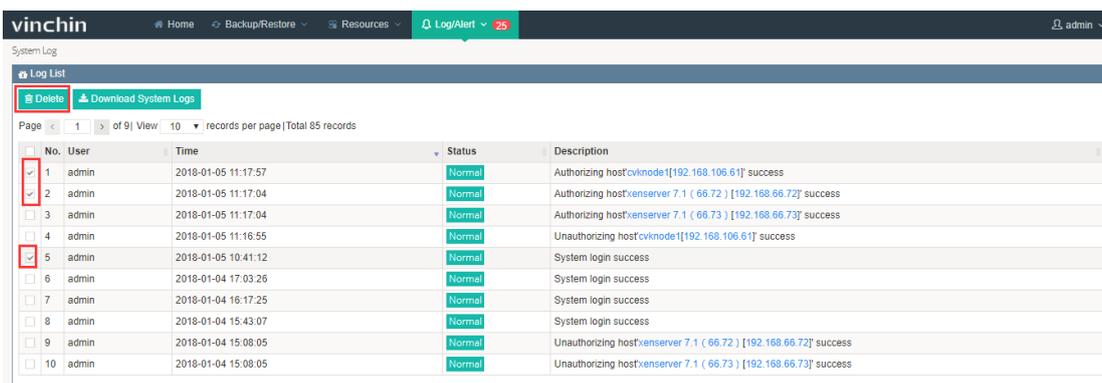
Note: Once deleted, the job log is not recoverable.

System Log

Click “Log/Alert” → “System Log”, you are coming to the system log page, here has listed all the system logs details including status, time and description etc. as below:

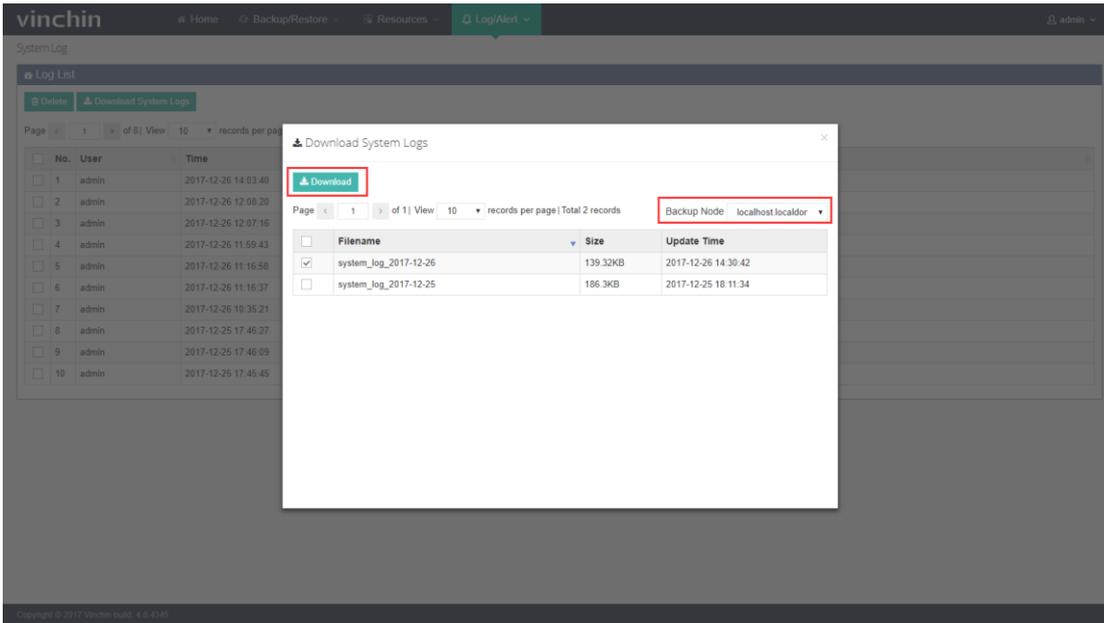


You can choose target system logs to delete as below:



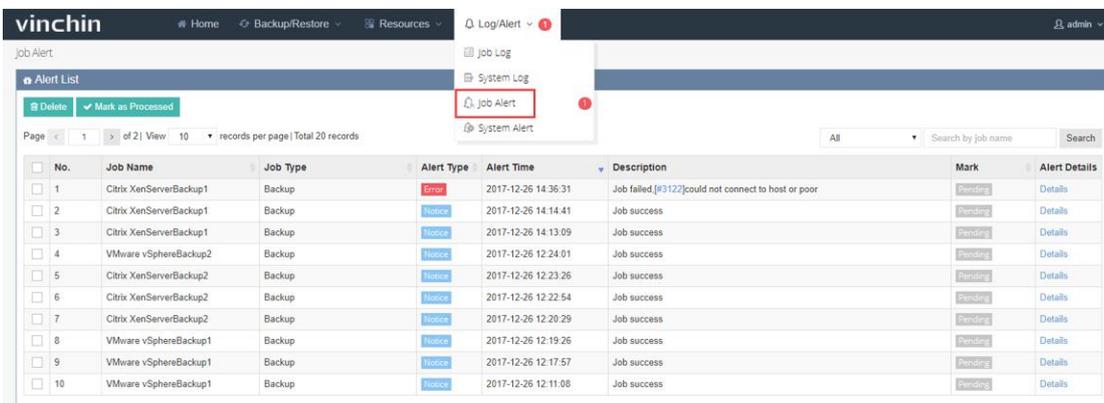
Note: Once deleted, the system log is not recoverable.

If you want to download the system logs, you can click “Download System Logs”, then select backup node and choose a system log file in a certain day to download as below:



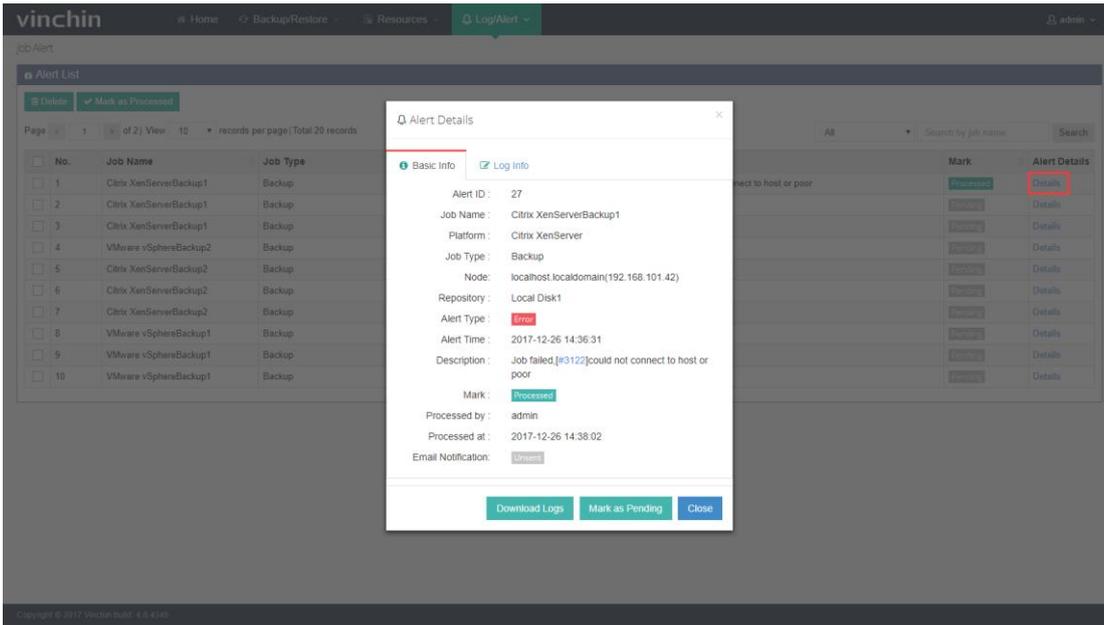
Job Alert

Click “Log/Alert”-“Job Alert”, you are coming to the job alert page. In this page you are able to view each job running alert including “Notice” “Warning” “Error”, you can also delete them as below:

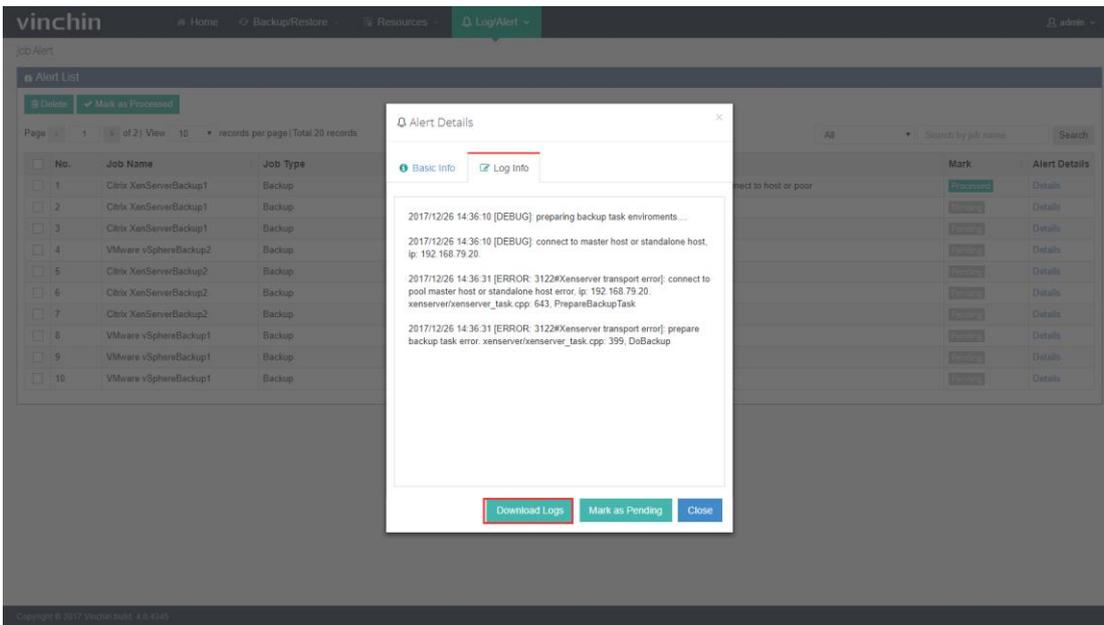


Note: Once deleted, the job alert is not recoverable.

New job alert is default marked as pending, if you have checked this alert and processed accordingly, you can mark it as processed by clicking “Mark as Processed”. Click Details you can see the job alert details as below:

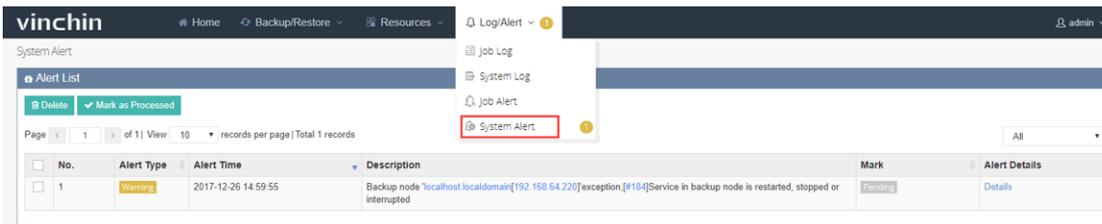


If it is an error alert, you can check the error info from “Log Info” page as below, and you can download the log details.



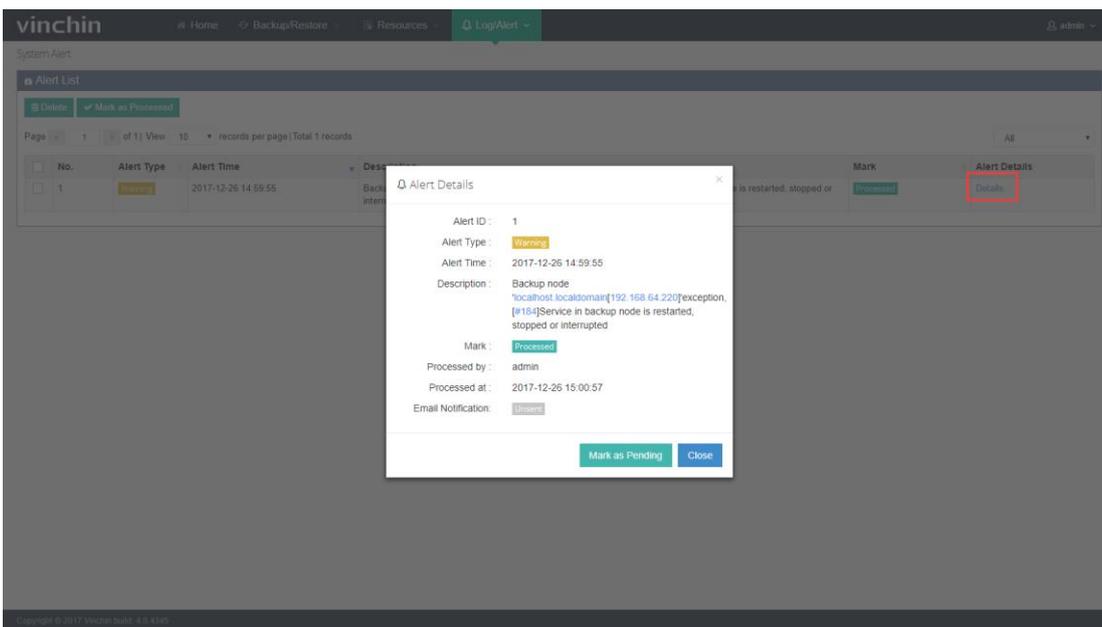
System Alert

Click “Log/Alert”-“System Alert”, you are coming to the system alert page. In this page you are able to view system running alert including “Notice” “Warning” “Error”, you can also delete them as below:



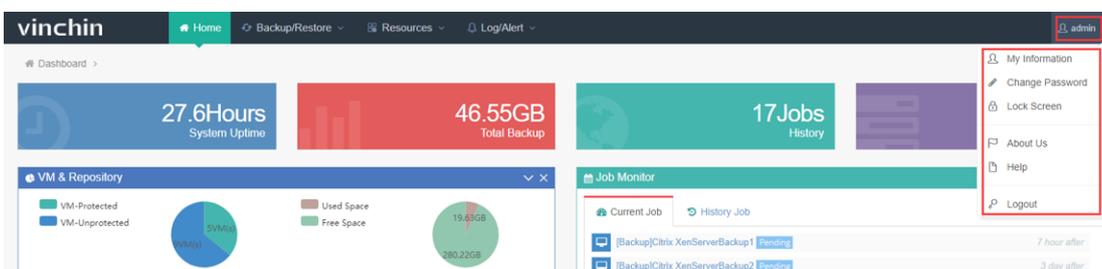
Note: Once deleted, the system alert is not recoverable.

New system alert is default marked as pending, if you have checked this alert and processed accordingly, you can mark it as processed by clicking “Mark as Processed”. Click Details you can see the system alert details as below:



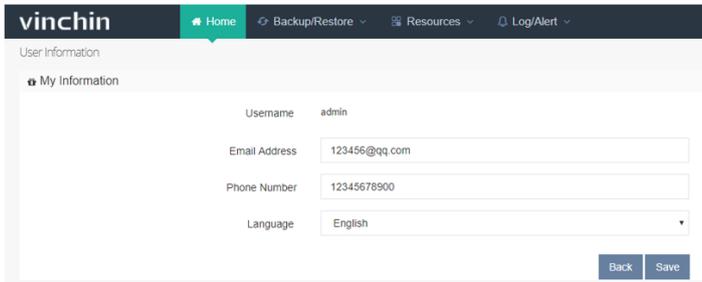
Admin

Click “Admin” on the top right, you will see several basic settings as below:



My Information

Click “My Information” you can edit email address, phone number and change language (currently support English, Chinese simple, Chinese Traditional).



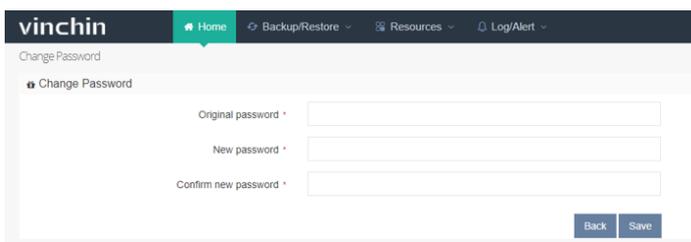
The screenshot shows the 'My Information' page in the Vinchin interface. The page has a dark header with the 'vinchin' logo and navigation links: Home, Backup/Restore, Resources, and Log/Alert. Below the header, the page title is 'User Information' and the sub-section is 'My Information'. The form contains the following fields:

Username	admin
Email Address	<input type="text" value="123456@qq.com"/>
Phone Number	<input type="text" value="12345678900"/>
Language	<input type="text" value="English"/>

At the bottom right of the form, there are two buttons: 'Back' and 'Save'.

Change Password

Here you can change system login password as below:



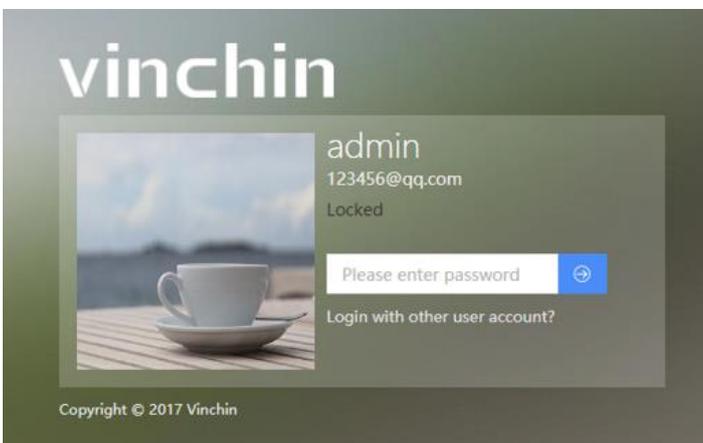
The screenshot shows the 'Change Password' page in the Vinchin interface. The page has a dark header with the 'vinchin' logo and navigation links: Home, Backup/Restore, Resources, and Log/Alert. Below the header, the page title is 'Change Password' and the sub-section is 'Change Password'. The form contains the following fields:

Original password *	<input type="password"/>
New password *	<input type="password"/>
Confirm new password *	<input type="password"/>

At the bottom right of the form, there are two buttons: 'Back' and 'Save'.

Lock Screen

Here you can manually lock the system as below:



About Us

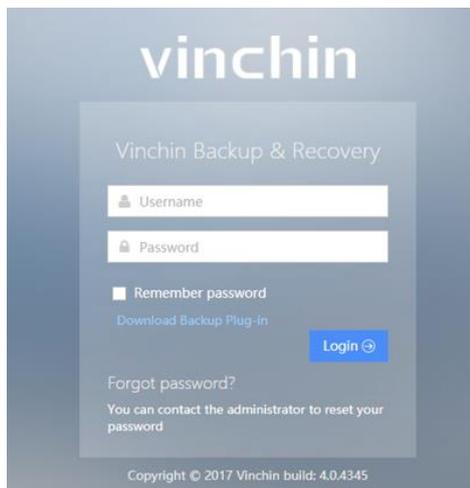
Here is the link to Vinchin Official Website.

Help

If you need any support during using Vinchin Backup & Recovery, you can contact us via “Help”.

Logout

Click “Logout” to manually log out Vinchin Backup& Recovery system as below:





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