

Install RingStor Vault

RingStor Vault Components

Cloud End Point

- manage configuration for RingStor
- must be installed first
- Master community is created after installation
- Only one Cloud End Point shall be installed

Cloud Indexer

- process backup index
- Only one Cloud Indexer shall be installed

DataServer

- one ore more to process backup and restore
- At lease one must be installed, more can be added if needed



Install RingStor Vault

RingStor Vault Components

RingStor Explorer

- A graphic user interface to manage configuration for RingStor
- can be installed by any user

Index Storage

- Storage device for backup index
- Only one Index Storage device is need

MountPath

- Storage device for backup data
- At lease one must be added, more can be added if needed



System

System Requirements:

Cloud End Point

- Windows operating system, server or PC
- .Net framework 3.5
- Microsoft SQL or SQL Express 2008 or newer, local or remote
- minimum 2GB memory available for Cloud End Point
- hard drive free space is at least 10% of total space with minimum 10GB
- Windows service account with Log On As Service permission

Cloud Indexer

- Windows operating system, server or PC
- . Net framework 3.5
- minimum 2GB memory available for Cloud End Point
- hard drive free space is at least 10% of total space with minimum 10GB
- Windows service account with Log On As Service permission

DataServer

- Windows operating system, server or PC
- . Net framework 3.5
- minimum 4GB memory available for Cloud End Point
- hard drive free space is at least 10% of total space with minimum 20GB
- Windows service account with Log On As Service permission



System

System Requirements:

RingStor Explorer

- Windows operating system, server or PC
- .Net framework 3.5
- minimum 1GB memory available

Index Storage

- An UNC path
- free space required depends on RingStor Vault clients and backups
- Service account from Cloud End Point, Cloud Indexer and DataServer must have full access

MountPath

- One or more MountPath can be configured
- MountPath is an UNC path
- free space required depends on RingStor Vault clients and backups
- Service account from Cloud End Point and DataServer must have full access



RingStor Vault

Installation Steps

- 1. Install Cloud End Point
- 2. Install Cloud Indexer
- 3. Install DataServer to the Vault
- 4. Install RingStor Explorer to manage RingStor Vault
- 5. Complete final configuration



.Net Framework

Install .Net Framework 3.5 on Windows Server

From Server Manager, click Add roles and features

a	Server Man	ager			
💮 🗧 🥶 Dashbo	bard	• 🕄 🚩 Manage Ic	ools <u>V</u> iew <u>H</u> elp		
Image: Dashboard Image: Local Server Image: All Servers Image: File and Storage Services Image: Particular Se	WELCOME TO SERVER MANA	GER Configure this local serv	er		
	WHAT'S NEW	 Add other servers to mar Add other server group Connect this server to clc 	Select features M The destination server ha Before You Begin Installation Type Server Roles Features Confirmation Results	Add Roles and Features Wizard s a pending restart. We recommend that you restart the destination Select one or more features to install on the selected server. Features Image: Transwork 3.5 Features (1 of 3 installed) Image: Transwork 3.5 Features (3 of 7 installed) Image: Transfer Service (BITS) BitLocker Drive Encryption BitLocker Network Unlock BranchCache Cleint for NFS Data Center Bridging Direct Play Enhanced Storage	DESTINATION SERVER ringstornet Server before either installing o × Description .NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.
				< <u>P</u> revious <u>N</u> ext	> Install Cancel



.Net Framework

Install .Net Framework 3.5 on Windows PC

Open Program and Features, start from Turn Windows features on or off:

urn V	Vindows features on or off			(
o turn :	a feature on select its check how. To turn a fe	ature	off clear	ite
heck b	ox. A filled box means that only part of the f	eature	is turned	on.
+	NET Framework 3.5 (includes .NET 2.0 and	13.0)		
æ 🔳	.NET Framework 4.8 Advanced Services			
	Active Directory Lightweight Directory Ser	vices		
	Containers			
	Data Center Bridging			
• 🗆	Device Lockdown			
	Guarded Host			
• 🗌	Hyper-V			
\checkmark	Internet Explorer 11			
Ð 🔳	Internet Information Services			
	Internet Information Services Hostable We	eb Core	2	



SQL Server

Install Microsoft SQL or SQL Express 2008 or later

SQL Server authentication must be enabled

TCP/IP protocols must be enabled

Make a note of port used in TCP/IP







Service Account

Windows service account with Log On As Service permission

Open Local Security Policies window from Administrative Tools -> Local Security Policies.

Expand Local Policies -> User Rights Assignment, find policy "Log On As Service" in right pane.

Open and verify or add chosen server account user to this policy group.





Cloud End Point

Install Cloud End Point

- Step 1 Start Installation
- Step 2 License Agreement
- Step 3 Specify Installation Root Folder
- Step 4 Menu and Shortcut
- Step 5 Cloud End Point hostname

and port

The host name will be pre-filled with current computer's hostname or IP. If an IP is provided, the computer must be configured with static IP.

The port is default to 9000, you may change the port.

If the network has a firewall, port must be added to the firewall to allow both incoming and outgoing connection

Cloud End Po Verify Cloud	int Configuration End Point's hostname a	and provide port number for ser	vice.
Host Name:	rswin7		
Port:	9000		
ingStor ———			Next > Cancel



Cloud End Point

Install Cloud End Point

- Step 6 Set up Cloud Administrator
- This user is administrator for Master community which will be created at end of installation.
- Step 7 Specify Database Repository
- SQL Server host name of the computer where SQL server is running
- TCP Port TCP port for the SQL service (see prerequisites)
- SQL Username SQL server user account, this account must have permission to create database
- SQL Password password for the user account above

Setup - Kingstor Cloud	End Point 4.5.1	0	X
Cloud End Point Configu Create doud administrate	iration or account		
Provide username and pa	assword for cloud administrate	r account	
Administrator Username:	rsadmin		
Administrator Password:	•••••		
Confirm Password:	•••••		
RingStor ————		Next >	Cancel
髪 Setup - RingStor Clou	d End Point 4.5.1		
Cloud End Point Config Configure database	uration		
Provide SQL Server sett	ings to create database.		
Provide SQL Server sett	ings to create database.		
Provide SQL Server sett SQL Server: rswin7 TCP Port:	ings to create database.	0	
Provide SQL Server sett SQL Server: rswin7 TCP Port: SQL Username: sa	ings to create database.	0	
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Provide SQL Server sett SQL Server: rswin7 TCP Port: SQL Username: sa SQL Password: SQL Password:	ings to create database.	 ∂	



Cloud End Point

Install Cloud End Point

Step 8 – Setup Cloud End Point Service

The user is Windows service account setup in prerequisites.

This service account must have full access to index storage and all MountPaths that are configured in last step of RingStor Vault installation.

Specify user accour	t information for Cloud End Poin	it service.
Important: Service location.	account must have read and writ	te permissions to the cloud index
Account:	.\rsdemo	
ex.	. \username, or domain\userna	ame
Password:	•••••	
Confirm Password:	•••••	
User must have Log	On As Service permission in Loc	al Security Policy.



Cloud Indexer

Install Cloud Indexer

- Step 1 Start Installation
- Step 2 License Agreement
- Step 3 Specify Installation Root Folder
- Step 4 Menu and Shortcut
- Step 5 Provide Cloud info and administrator credentials

Cloud info and administrator are set during Cloud End Point installation.

Step 6 – Setup Cloud Indexer Service

This service account must have full access to index storage.

setup - Kingstor	r Cloud Indexer 4.5.1			10.00	SUC 2.0
Configure Cloud I	onfiguration Indexer for RingStor				
Cloud End Point					
Cloud Hostname:	rswin7				
Cloud Port:	9000				
Cloud Administrat	tor Account				
User:	rsadmin				
Password:	••••				
gStor —				Next >	Cance
gStor		_		Next >	Cance
gStor Setup - RingStor	r Cloud Indexer 4.5.1			Next >	Cance
gStor Setup - RingStor Noud Indexer Co Specify user acco	r Cloud Indexer 4.5.1 onfiguration ount information for Cloud I	ndexer service.		Next >	Cance
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gStor Setup - RingStor Cloud Indexer Cc Specify user acco Service account n previous screen. Account:	r Cloud Indexer 4.5.1 onfiguration ount information for Cloud I must have read and write p	ndexer service. ermissions to th	e cloud ind	Next >	Cance
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gStor Setup - RingStor Joud Indexer Co Specify user acco Service account n previous screen. Account: ex.: . Password: Confirm Password	r Cloud Indexer 4.5.1 onfiguration ount information for Cloud I must have read and write p .\tsdemo .\username, or domain\use	ndexer service. ermissions to th	e cloud ind	Next >	Cance
gStor Setup - RingStor Joud Indexer Co Specify user acco Service account n previous screen. Account: ex.: . Password: Confirm Password User must have L	r Cloud Indexer 4.5.1 onfiguration nunt information for Cloud I nust have read and write p .\fraction in the second secon	ndexer service. ermissions to th mame n in Local Secur	e cloud ind	Next >	Cance
gStor Setup - RingStor Joud Indexer Co Specify user acco Service account n previous screen. Account: ex.: . Password: Confirm Password User must have L	r Cloud Indexer 4.5.1 onfiguration sunt information for Cloud I must have read and write p .\the sdemo .\username, or domain \use .\username, or domain \use 	ndexer service, ermissions to th mame n in Local Secur	e cloud ind	Next >	Cance



DataServer

Install DataServer

- Step 1 Start Installation
- Step 2 License Agreement
- Step 3 Specify Installation Root Folder
- Step 4 Menu and Shortcut
- Step 5 DataServer hostname and port

The host name will be pre-filled with current computer's hostname or IP. If an IP is provided, the computer must be configured with static IP.

The port is default to 9090, you may change the port





DataServer

Install DataServer

Step 6 - Provide Cloud End Point info

DataServer must connect to the existing Cloud End Point and register itself to become part of RingStor Vault, make sure Cloud End Point is online and provide Cloud End Point settings in this step.

Step 7 - Provide Cloud End Point info

This service account must have full access to index storage and all MountPaths that are configured in last step of RingStor Vault installation.

🖳 Setup - RingSto	r DataServer 4.5.1	
DataServer Confi Configure DataSe	iguration erver to Attach to RingStor	
Cloud End Point		
Cloud Hostname:	rswin7	
Cloud Port:	9000	
Cloud/Community User:	Administrator Account	
Password:		
Note: If communi this community a	ity administrator account is u nd all its backup agents.	sed for install, this DataServer is dedicated to
RingStor		
		< Back Next > Cancel

Specify user accourt	uration nt information for DataSe	erver service.	+
Service account mu Indexer installation	ist have read and write p and MountPaths.	ermissions to both cloud i	ndex path from Cloud
Account:	.\rsdemo		
ex.: .\µ	username, or <mark>d</mark> omain\use	rname	
Password:			
Confirm Password:	•••••		
User must have Log	g On As Service permissio	on in Local Security Policy.	



Explorer

Install RingStor Explorer

RingStor Explorer is a graphic user interface to manage RingStor

RingStor Explorer can be used by any RingStor user

RingStor Explorer can be installed on any Windows operating system



Final Configuration

Final Configuration

Configure Cloud Index Path

Log into RingStor Explorer as Cloud administrator

From top menu, open System -> Settings -> **Cloud Index Path**

Set an UNC path as Cloud Index Path

	Properties - RingStor Vault	×	
	General Mail Server Notifications Cloud Index Path		
Configuration	Cloud Index Path		
	Connection Type: UNC Path	<u></u>	
ure Cloud Index Path	Shared Folder: Wrswin10/RingStorIndex		
RingStor Explorer as Cloud			
	A Universal Naming Convention (UNC) string is used to specify the location of resources such as shared files or	te -	
י menu, open System -> Settings ->	devices, ex. liservername pain	d	
dex Path	Point, all DataServers and Cloud Indexer must have read/write permissions to this UNC path.	9	
NC path as Cloud Index Path			
	Save		
		Add New Mo	untPath X
			Select a MountPath Pool
Add MountDath			Select a Community Master Community
Add Mountrath		0	Select a MountPath Pool
Log into RingStor Explorer as Cloud ad	ministrator		Master Primary MountPath Pool ~
From top menu, open Storage -> Add I	New MountPath		IMPORTANT: MountPath is limited to store backup data from DataAgents that are in the same community or all its child communities.
Set an UNC path as MountPath			
Select Master Community and Primary	MountPath Pool for this		
MountPath			
			Note that the Next button is disabled until you select a MountPath
			Back Next Cancel