vinchin

VINCHIN BACKUP & RECOVERY V7.2

User Guide for SQL Server Database

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Partner Independent Software Vendor

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Supported SQL Server Environments

Supported Deployments:

- Standalone
- Failover Cluster
- Always On availability groups

Supported MS SQL Server Versions:

- MS SQL SERVER 2008 R2
- MS SQL SERVER 2012
- MS SQL SERVER 2016
- MS SQL SERVER 2017
- MS SQL SERVER 2019

Supported Operating Systems:

- Windows server 2008 R2
- Windows Server 2012 R2
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2017
- Windows Server 2019

Preparation for SQL Server Backup

Download Agent

Open the web console of Vinchin Backup & Recovery on the target Windows server which you wish to backup, on the login screen, click on **Download Backup Plugin** to show the agent download options.

In the Type dropdown list, please select Physical Backup Agent option.

In the OS dropdown list, please select Windows.

Click on **Download** button to download the backup agent for the Windows servers.

The downloaded backup agent installer for Window should be a .exe package. If you've downloaded it on another Windows desktop, please upload it to the Windows server which you wish to backup.

Install Agent

Please follow the installation wizard to complete the database backup agent installation. Install the backup agent follow the steps below.

1. Run the backup agent installer with administrator permission by right clicking on the installer and select **Run as administrator**.

2. Specify installation location.

🌄 Setup - VinchinBackupAgent	—		×
Select Destination Location Where should VinchinBackupAgent be installed?			R
Setup will install VinchinBackupAgent into the following folder.			
To continue, click Next. If you would like to select a different folder, cli	ck Brows	e.	
C:\Program Files\VinchinBackupAgent	Brov	vse	
At least 500.0 MB of free disk space is required.			
< Back Next >		Cance	el

It's recommended to install the backup agent in the default location.

3. Specify connection mode.

🌄 Setup - VinchinBackupAgent		-		×
Agent configuration Connection mode			6	
O Connection mode 1 Server-to-client				
Connection mode 2 Client-to-server				
	< Back Ne	ext >	Can	cel

Choose between Connection mode 1 and 2 to determine "Server-to-client" or "Client-to-server" connection mode.

If Connection mode 1, the agent will only be installed and will not connect to server, users will have to add the agent from Vinchin Backup & Recovery web console after the agent installation.

If Connection mode 2, users will be asked to provide the Vinchin backup server IP for the agent being able to automatically connect to after the installation.

4. Specify backup server IP.

🌄 Setup - VinchinBackupAgent		-	□ ×
Agent configuration			
Specify backup server IP			
Please enter the backup server IP:			
172.18.1.10			
	< Back	Next >	Cancel

If you had chosen Connection mode 2, please enter the backup server IP address and click on next to continue.

5. Port configurations.

If Connection mode 1, users have to specify the Agent listening port and Agent transmission port.

🄜 Setup - VinchinBackupAgent		-		×
Agent configuration Service port configuration			1 1 1	B
Server listening port 22710	Agent transmission port 23101			
	< Back Next >		Cancel	

If Connection mode 2, users have to specify the server listening port and agent transmission port.

🌄 Setup - VinchinBackupAgent		-	
Agent configuration Service port configuration			
Agent listening port 23100	Agent transmission port 23101		
	< Back Next >		Cancel

For both scenarios, it's always recommended to use the default port numbers.

6. Specify the start menu folder.

🔜 Setup - VinchinBackupAgent	—		×
Select Start Menu Folder Where should Setup place the program's shortcuts?			
Setup will create the program's shortcuts in the following Start M	1enu fol	der.	
To continue, click Next. If you would like to select a different folder, click	Browse		
VinchinBackupAgent	B <u>r</u> ow	se	
< <u>B</u> ack <u>N</u> ext >		Cance	el

Please use the default folder and click on Next to continue.

7. Confirm installation.

🌄 Seti	up - VinchinBackupAgent —		×
Re	ady to Install Setup is now ready to begin installing VinchinBackupAgent on your computer.	6	Ð
	Click Install to continue with the installation, or click Back if you want to review change any settings.	or	
	Destination location: C:\Program Files\VinchinBackupAgent	^	
	Start Menu folder: VinchinBackupAgent		
	<	>	
	< <u>B</u> ack Instal	Can	cel

If there's no issue with the installation location and the start menu folder, please click on **Install** to confirm the agent installation.

Once the installation is completed, please click on Finish to exist the agent installation wizard. If you had chosen Connection mode 1 (Server-to-client), after the agent installation, please open Vinchin Backup & Recovery web console to add the agent to Vinchin backup server, please refer to Add Agent.

Once the installation completed, there will be two services 'database_backup_service' and 'database_transfer_service' running which could be found in Windows **Services**. Then you have successfully installed the SQL Server backup plugin on the Windows system.

Processes Performance Users	Details	Services			
Name	PID	Description	Status	Group	^
🌼 database_backup_service	3172	database_backup_service	Running		
database_transfer_service	5620	database_transfer_service	Running		
db =					

There are these ports: 22710, 22711, 23100, 23101, 50000-60000 will be opened on your

database server while installing the database backup agent.

If you want to use Windows administrator to backup the database, please edit the database backup services to log on as **administrator** from Windows **Services**.

Please first stop 'database_backup_service' and 'database_transfer_service' services by right clicking on them and select **Stop**.

🤹 Services					- 6) ×
File Action View	Help					
	Q 📑 🛛 📰 🕨 🔲 🕪					
Services (Local)	Services (Local)					
	database_transfer_service	Name	<u>^</u>	Description	Status	^
		🤹 Contact Data_k	bced3	Indexes contact data for fast co		
	Stop the service	CoreMessaging	9	Manages communication betw	Running	
	Restart the service	🖏 Credential Mar	nager	Provides secure storage and ret	Running	
	richard the service	Cryptographic	Services	Provides three management se	Running	
		🖏 Data Sharing S	ervice	Provides data brokering betwe	-	
		database_back	up_service	-	Running	
		database_back	up_service_dm		Running	
		database back	up service dm pg		Running	
		database_trees	· · · · · · · · · · · · · · · · · · ·		Running	
		A DataCollect	Start	The DCP (Data Collection and		
		DCOM Serv	Stop	The DCOMLAUNCH service lau	Running	
		Device Asso	Pause	Enables pairing between the sy	-	
		Device Insta	Resume	Enables a computer to recogni		
		Device Man	Pertert	Performs Device Enrollment Ac		
		Device Setu	Restart	Enables the detection, downloa		
		DevOuerv B	All Tasks >	Enables apps to discover devic		
		DHCP Clien	2.6.1	Registers and updates IP addre	Running	
		Diagnostic	Kerresh	The Diagnostic Policy Service e	Running	
		Diagnostic (Properties	The Diagnostic Service Host is		
		Diagnostic 1		The Diagnostic System Host is	Running	
		Distributed	Help	Maintains links between NTES f	Running	
		Distributed Tra	nsaction Coordinator	Coordinates transactions that s	Running	
		dmwappushsy	c	WAP Push Message Routing Se		
		DNS Client		The DNS Client service (dnscac	Running	
		Downloaded N	Aaps Manager	Windows service for applicatio		
		C Embedded Mo	ide	The Embedded Mode service e		
		Constant File	System (FES)	Provides the core file encryption		
		C Enterprise Ann	Management Service	Enables enterprise application		
		Contanzible Aut	contigation Distance	The Extensible at the at the fill	dows	~
		<		Go to Settings to	activate Wind	lows.
	Extended Standard					
Start service database	transfer service on Local Computer					

When these 2 services had been stopped, right click on them and select **Properties > Log On**, select log on as **This account**, then fill in the administrator account name and password, click on **Apply** and restart the services.

database_backup_	service Pr	operties (Local C	Computer)		\times
General Log On	Recovery	Dependencies			
Log on as: Local System Allow servit	account ce to intera	ct with desktop			
This account:	ad	ministrator		Browse	
Password:	•	•••••			
Confirm passw	ord:	•••••			
		ОК	Cancel	Apply	

Add Agent

No matter for Linux or Windows backup agents, if the connection mode is 1 (Server-to-client), after the agent installation, users have to added the agents from Vinchin Backup & Recovery web console from **Resources** > **Agents** page.

Click on Add button to add the agent.

Notice		×
1. Please download and	install agent on target server then add the agent.	
2. If the agent is installe don't have to add.	d with Agent-to-server connection mode, agent will connect to	server directly, you
If the agent is installe agent.	d with Server-to-agent connection mode, please fill in physical	server IP to add
ID Address		
IF Address	172.18.19.25	~
Name	CentOS Server	~
Agent Signaling Port	23100	

In the **IP Address** field, please input the IP of the Linux/Windows server which you had installed the agent with Server-to-client connection mode.

In the **Name** field, you can give it a name for identification.

As for the **Agent Signaling Port**, it's not recommended to change it, please leave it as default. Once done, click **OK** to add the agent.

Gag	ents 🖀 Agent Groups								
⊕ Ao	d ⊿a Edit 🗇 Delete	✓ License						Search by hostna	me or IP Search
	IP Address	Hostname 🗍	OS 🗄	Licensed module	Application Settings	Add Time	Status 🔶	Owner 🔶	Operation
	172.18.18.9	WIN-VISBH2S190J/Windows Server 2016	Windows Server 2016 Standard			2023-02-07 17:35:11	Online(Deployed)	admin	한 Options ~
	172.18.19.26	localhost.localdomain/172.18.19.26	CentOS Linux release 7.8.2003 (Core)			2023-02-03 10:44:19	Online(Deployed)	admin	한 Options ~
	172.18.19.25	localhost.localdomain/172.18.19.25	CentOS Linux release 7.8.2003 (Core)	-		2023-02-03 10:44:19	Online(Deployed)	admin	한 Options ~

All agents connected to Vinchin backup server, no matter with Server-to-client or Client-to-server mode, will be all list on the **Resources** > **Agents** page.

License Agent

All physical backup agents connected to Vinchin backup server will be listed on the **Resources** > **Agents** page. Before users can perform file, database or server backup, the agents need to be licensed with corresponding license modules.

Select one or a group of physical backup agents and click on License button, you'll be able to enable backup of those agents.

G Agent License			×
Hostname	localhost.localdomain, localh localhost.localdomain	ost.localdomain, localhost.localdomain	,
IP Address	172.18.19.33, 172.18.19.34, 17	2.18.19.26, 172.18.19.25	
Licensed module	File Backup	Free/Used/Total: 19/1/20	
	Database Backup	Free/Used/Total: 20/0/20	
	Server Backup	Free/Used/Total: 20/0/20	
Notice			×
1. License: sele	ct license module and click on Lice	nse button.	
3. You can batc	h license/unlicense agents with the	same license module.	
	Ŭ		
		Unlicense	License

The physical backup agents can be licensed with File Backup, Database Backup and Server Backup license modules. According to the workloads running on the physical server, please select corresponding module and then click on **License** button to get the agents licensed for backup. To unlicense the agents, please also select the corresponding module and click on **Unlicense** button to get the agents unlicensed.

Configure Application

After the installation of Vinchin physical backup agent on SQL Server database server, users have to license the agent with database backup module.

When done installation and licensing, please open Vinchin Backup Server web console and go to **Resources > Agents** page, find the target agent, click on **Options** and then select **Application** to configure application settings for database backup.

Click on **Configure Application** button to configure the application settings. In the **Application Type** dropdown list, please select **SQL Server**.

⊕ Configure Application							×
1 Appli	cation T	уре			Appli	cation Settings	
Application Type *	SQL S	Server			~		
Select Instance *	In	istance Name	Database Type	Version	User	Authentication Mode	Auth
	M	SSQLSERVER	SQL Server				
		Page		of 1 View	10	records Total 1 r	acord(e)

Select the SQL Server instance and click on Next.

There are two authentication modes, Windows Authentication and SQL Server Authentication.

If select **Windows Authentication**, agent will use the user which you logged in to connect the SQL Server database, when running database backup.

If select **SQL Server Authentication**, in the popup dialog, fill the **Username** and **Password** that database you want to use.

⊕ Configure Application			×
1 ~ Ap	plication Type	2 Application Settings	
Authentication Mode	SQL Server Authentication	~ ()	
Username *	sa		
	Database instance user name.		
Password *			
	Password for database instance login.		

When SQL Server application is successfully configured, in the agents list, you should see the agent look like below.

172.18.22.11	WIN-18KFA5CU5LP/sqlserver	Windows Server 2016 Datacenter	8	MSSQLSERVER(SQL	2023-02-17 15:05:04	Online(Deployed)	admin	Options ~
				Server)				

Now you should be able to create backup jobs for the SQL Server database server.

Note

Whichever authentication mode you select, please ensure that the user must have database *sysadmin* permissions.

Before Backing Up MS SQL Server

Check Database User Permission

Check the database user permissions which you wish to perform SQL Server database backup, at least ensure the user have **sysadmin** permission, check the details as below.



Check Recovery Model

Check the recovery model of database, please ensure the recovery mode is "Full", otherwise log backup job will fail.

Database Properties - DWDi	agnos	tics				×
Select a page 🏓 General	1 s	Goript 🔻 😯 Help				
Files Filesroups	Col	lation:	Chinese	PRC_CI_AS		\sim
🔑 Options	Rec	covery model:	Full			\sim
👂 Change Tracking	Com	patibility level:	SQL Ser	ver 2016 (130)		\sim
Fermissions Extended Properties	Cor	ntainment type:	None			\sim
🔑 Mirroring	0tł	ner options:				
🔑 Transaction Log Shipping 🎤 Query Store		2↓ □				
	~	Automatic				^
		Auto Close		False		
		Auto Create Incremental Stat	istics	False		
		Auto Create Statistics		True		
		Auto Shrink		False		
		Auto Update Statistics		True		
		Auto Update Statistics Async	hronous	False		
Connection	\sim	Containment				
a		Default Fulltext Language LO	ID	2052		
Server: WIN-AE7F64E0P0S		Default Language		Simplified Chinese		
		Nested Triggers Enabled		True		
Uonnection: WIN-AE7F64E0P8S\Administrat		Transform Noise Words		False		
M W		Two Digit Year Cutoff		2049		
V view connection properti	· ~	Cursor				
		Close Cursor on Commit Enabl	.ed	False		
		Default Cursor		GLOBAL		
P	\sim	Database Scoped Configur	ations			~
Ready	Au	to Close				
				OK	Can	cel

Check Restrict Access

Check the Restrict Access is 'MULTI_USER' in database properties so that the database can be multiple access when do backup or restore job.

Database Properties - DWQu	eue	augustratori		- 0	X
Select a page 🌶 General	[] s	Script 🔻 🕜 Help			
👂 Files	C₀l	lation:	Chines	• PRC CI AS	~
Filegroups	Rec	coverv model:	Simple		~
🖋 Change Tracking	Con	natibilitu level	SUL 200	ever 2016 (130)	
🔑 Permissions	Com	stationant turna	Ner Sei	(VEF 2010 (130)	×
Extended Properties		itainment <u>t</u> ype.	None		~
Mirroring Trensection Log Shipping	Ütł	ner options:			
& Query Store		2↓ □			
		Quoted Identifiers Enabled		False	^
		Recursive Triggers Enabled		False	
		Trustworthy		False	
		VarDecimal Storage Format End	abled	True	
	~	Recovery			
		Page Verify		CHECKSUM	
		Target Recovery Time (Seconds	5)	60	_
Connection	~	Service Broker			
Server		Broker Enabled		Irue	_
WIN-AE7F64E0PQS		Honor Broker Friority		Malse	-
Connection:		Service Broker Identifier		Zbijeazz-436a-4clc-96aU-9936c595a6e6	
WIN-AE7F64E0PQS\Administrat	×	Databasa Raad-Only		Falsa	
👾 <u>View connection properti</u>		Database State		NOEMAL	
		Encryption Enabled		False	
		Restrict Access		MULTI_USER	-
-					\checkmark
Ready Ready	Au	uto Close			
				OK Cano	el

Create Backup Job

To create SQL Server database backup jobs, please go to **Physical Backup** > **Database Backup** > **Backup** page. There are 4 steps to create a database backup job.

Step 1: Backup Source

First select database backup agent from left column, then expend SQL Server instance and select the databases which need to be backed up.

C [•] New Database Backup Job	
1 Backup Source	2 Backup Destination 3 Backup Strategies 4 Review & Confirm
E Database Backup Agents	Backup Source: Select the target instance or database to backup.
SQL Server 🗸	WIN-Q220ESRH7TP(172.18.40.5)
Search by keywords	
U V U Detault Group	Imaster Imaster <td< th=""></td<>

Step 2: Backup Destination

A backup destination (backup storage) should be associated with this backup job.

1 v Backup Source	Backup Destination	3 Backup Strategies	4 Review & Cor
Target Node	localhost.localdomain(192.168.91.18)	~	
Target Storage	CIFS_NEIL_PC(CIFS Share, Capacity :331.51GB, F CIFS_NEIL_PC(CIFS Share, Capacity :331.51GB, F Local Disk, 18(Local Disk, Capacity :49.97GB, Free : 1. Select a backup more to run mis backup you 2. Select a storage on the node to save the backup data.	ree Space:314.84GB) v ree Space:314.84GB) Space:46.37GB)	

In the **Target Node** dropdown list, you can select a backup node on which you want the backup data to be processed and stored.

In the **Target Storage** dropdown list, the storages belong to the selected backup node can be selected.

When done selecting the backup storage, please click on Next button to continue.

Step 3: Backup Strategies

In the General Strategy it including Schedule, Speed Controller, Data Storage Policy and Retention Policy.

R New Database Backup J	ob	
1 v Backup So	urce 2 v Backup Destination 3 Backup Strategies	4 Review & Confirm
🖉 General Str	ategy 🗢 Transmission Strategy @E Advanced Strategy	
	🖸 Schedule	+
	Mode Backup as scheduled Schedule * Full Backup Differential Backup Log Backup	
	C Speed Controller	+
	Data Storage Policy Data Deduplication: OFF, Data Compression: ON	+
	Retention Policy Restore Point(s), 30	+

In the Schedule field, you can configure the time schedule of the backup job, you can configure the job as a **Backup as Scheduled** job or a **Once-off Backup** job.

For a once-off backup job, the job will only run for once, and only full backup will be performed. You only have to appoint a time of when to start the backup job, in the Time Schedule field.

🖸 Schedule										
Mode	Once-off Bac	kup:						~		
Start Time *							×		0	
			N	over	nber	202	1	>		
Speed Control	ler	Su	Мо	Tu	We	Th	Fr	Sa		
		31	1	2	3	4	5	6		
💾 Data Storage I	Policy Data [7	8	9	10	11	12	13	on: ON	
		14		16	17	18	19	20		
Retention Poli	CY Restore P	21	22	23	24	25	26	27		
		28	29	30	1	2	3	4		
		5	6	7	8	9	10	11		

For a backup as scheduled job, you can schedule Full Backup, Differential Backup and Log Backup. Here we take these three Backup as an example. Please set the backup mode and backup schedule as per your actual demands, then please click on **Next** to continue.

Mode	Backup as scheduled 🗸	
Schedule *	Full Backup 🗸 Differential Backup 🗸 Log Backup 🚯	
	✔ Full Backup (Every Friday, 23:00:00Start, No-repeat)	+
	 Differential Backup (Daily 23:00:00Start, No-repeat) 	-
	 Log Backup (Daily 23:00:00Start, No-repeat) 	-

Speed Controller is optional. It can be used to limit the transmission speed during database backup if needed.

The speed controller policy can be configured as either As Scheduled or Permanent. An As Scheduled policy can be configured to limit the backup speed on Daily, Weekly and Monthly basis.

(?) Speed Contro	ller			×
Policy	As Scheduled	× ()		
Schedule	Daily Weekly Monthly	Every week Start Time Repeat End	Monday Tuesday Wednesday Thursday Friday Saturday Sunday 23:00:00 23:30:00	
Max Speed	15 ^ ~	MB/s 🗸 🜖		
			Cancel OK	

A Parmanent policy will always limit the backup speed within the specified Max Speed.

🖓 Speed Contro	ller		×
Policy	Permanent	~ ()	
Max Speed	15 ^ ~	MB/s 🗸 🚯	
			Cancel OK

There are 3 options in Data Storage Policy section, Data Deduplication, Data Compression and Data Encryption. By enabling these 3 options, the backup data will be deduplicated, compressed and encrypted before saving into backup storage.

🗎 Data Storage Policy Data Deduplicat	ion: OFF, Data Compre	ression: ON,Data Encryption: OFF	_
Data Deduplication	Off	0	
Data Compression	On	0	
Data Encryption	Off	θ	

For the retention policy of the database backup, there are 2 retention mode, retain the database backups according to **Number of Restore Points** or **Number of Days**.

For the retention mode **Number of Restore Points**, the restore points will be counted by full restore points, including the differential backups and log backups dependent on this full backup.

For retention mode **Number of Days**, Vinchin Backup Server will save the restore points within the specified number of days.

Retention Policy Restor	e Point(s), 30	_
Retention Mode	Number of Rest V Number of Restore Points	
Restore Points	Number of Days	

When the retention policy is triggered, the outdated restore points will be purged to comply with the retention policy.

In the transmission Strategy, you can choose to enable **Encrypted Transmission** for data safety. The backup data will be transferred through LAN by default.

1 v Backup Source	2 v Backup Destination	3 Backup Strategies	4 Review & Confirm
🔏 General Strategy	⇒ Transmission Strategy @ Advanced Strategy		
Encrypted Trans	mission On ()		
Tra	sfer via LAN ~ (1)		

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Advanced Strategy including Check Database Integrity, SQL Server Compression and Page Checksum.



Check database integrity function is check database integrity and physical errors before the database backup job start.

SQL Server Compression is provided by SQL Server to reduce data transfer, data backup time and saves backup storage.

Page Checksum is used to verify the backup data during the transmission to avoid data damage.

Note

Between General Strategy Compressed Transfer and Advanced Strategy SQL Server Compression prefer only enable Compressed Transfer in general strategy. SQL Server Compression will use more CPU and memories.

Step 4: Review & Confirm

After completing the above mentioned settings, you are able to review and confirm the settings in one screen.

A job name can be specified for identification of the database backup job, and by clicking on the Submit button to create the backup job.

Managing Backup Job

Once a database backup job had been created, you will be redirected to the **Monitor Center** > **Jobs** page.

æ	Current Jobs	History Jobs	VM Backup	🖹 File Backup 🛛 🤶	Database Backup								
								Sea	irch by jol	name	Search	Q	Advanced search
	Job Name		Module	Job Type 👙	Create Time	•	Status 🕴	Spe	ed 🔶	Progress 👌	Creator		Operation
+	Database Bac	kup Job2	Database	Backup	2021-11-05 00:26:26		Pending				admin		✿ Options ∽

The status of the newly created job will usually be **Pending**, when the time condition matches the schedule, it will automatically run. And the status will change to Running, you can also see the transfer speed here within the job list.

Besides the Current Job list, there's a dedicated tab to show database backup jobs. More detailed information of database backup jobs, including database type, database agent info, backup node, next run time and some more detailed information dedicated for database backup will be given.

B (Current Jobs 🛛 🔊 H	istory Jobs	🗟 Database Back	qu							
								Search by	job name	Search Q A	dvanced search
	Job Name 🚽	Job Type 🕴	Database Type 🕴	Agent 🔅	Mount Node	Next Run	Status 🔅	Duration	Speed	Transferred Size	Operation
+	Database Backup J ob2	Backup	SQL Server	192.168.123.13	Main123.18(192.1 68.123.18)	2021-11-18 23:0 0:00	Pending				☆ Options ∨

By clicking on the job name you can check more detailed information on the **Job Detail** page. For a scheduled backup job, after running one of the schedules, the status will change to Pending again and then wait for the next run.

For a once-off backup job, after running the job for once, it will be removed from the Current Job list. And you can find it from the History Job list.

Create Restore Job

To restore databases from database backup restore points, please go to **Database Backup** > **Restore** page. There are 4 steps to restore databases from the database backup restore points.

Step 1: Restore Point

In the Restore Point dropdown list, select a backup node which stores the desired restore points. Select a target database restore point under your database which you want to restore. You can quickly find the target restore point by searching the job name, database name or the date of the restore point. One restore job can only select one restore point.

A New Database Restore Job				
1 Restore Point	2 Restore Destination 3		Restore Strategy 4 Review & Confirm	
Restore Point *	All nodes	~	Selected restore points	
	Search by database name Search by database mame Search by database Backup Job1(Job has been deleted) SQL Server SQL)))))	2021-12-14 23:00:10 (Log Backup) demo01	
	습 ট demo02 └── (2021-12-16 15:17:28 (Full Backup)			

Step 2: Restore Destination

After selecting the desired restore point, please select the target database instance on which you wish to restore. The target instance can be different but the version of your destination should keep consistent with backups.

New Database Restore Job			
1 v Restore Point	2 Restore Destination		4 Review & Confirm
Target Instance *	⊕ ★ WIN-AE7764E00QS(172.18.14.14) ⊕ ★ WIN-ASAMB248II(172.18.16.21) └ ⊕ ▲ MSSQLSEKVER		
	Notice: To guarantee a successful database restore to the target database host, the database host. the source database host.	iase installation path, login credentials and instance name should be the same as $ \times$	

Step 3: Restore Strategy

There are 2 options for database restore, Override Original Database and Create New Database. If you want to use the Override Original Database restore, please pay attention to this mode, it will directly override the database. It is recommended to use the Create New Database restore to first restore the data to a new path to verify the data then perform override original database restore.

New Database Restore Job					
1 v Restore Point	2 - Restore De	estination	3	Restore Strategy	4 Review & Confirm
Mode *	Override Original Database	~	0		
Database recovery configuration	Original database name Da	ata Encryption Password		Other configuration	
	test	-		-	
Transmission Strategy		td Transfer: OFF			
	Encrypted Of Transfer	0			
Speed Controller	Speed Controller			+	

Select Create New Database need to edit database name, database file path, log file path. The path must be correct and have enough free disk space, the path will be automatically created during restore process.

○ New Database Restore Job						
1 v Restore Point	2	✓ Restore Destination	3	Restore Strategy		Review & Confirm
Mode *	Create New Datab	ase	~ 6			
Database recovery configuration	Original database name	New database name	Database File Path	Log File Path	Data Encryption Password	Other configuration
	master	master_20231010150627	C:\Program Files\Microso	C:\Program Files\Microso	-	
Transmission Strategy	← Transmission Encrypted Transfer	OSTRATEGY Encrypted Transfer: OFF				
Speed Controller	Speed Contr	oller			+	

Transmission Strategy: If you enable the Encrypted Transfer, the data transmission channel will be SSL encrypted.

) New Database Restore Job						
1 v Restore Point	2	✓ Restore Destination	3	3 Restore Strategy		4 Review & Confir
Mode *	Create New Datab	ase	~	0		
Database recovery configuration	Original database name	New database name	Database File Path	Log File Path	Data Encryption Password	Other configuration
	master	master_20231010150627	c:\path\directory	c:\path\directory	-	-
Transmission Strategy	Transmission Encrypted Transfer	N Strategy Encrypted Transfer: ON				
Speed Controller	O Speed Contr	oller			+	

Same as database backup, while restoring databases, you can also configure speed controller to limit the database restore speed accordingly.

Step 4: Review & Confirm

After completing the settings mentioned above, you are able to review and confirm the settings in one screen.

Once the job has been created, you'll be redirected to the Monitor Center > Jobs page.

As the database restore job is by default to be executed right after the creation of the job, so it will run automatically, when you see it in the current job list, it should be in running status already, and once completed, the job will be automatically deleted from the current job list.

After this you can browse the restored job from History Jobs. Your restored data will be found in the path you configured during creating the restore job.

Attach Restored Backup Data

If you create new database to restore, please login the SQL Server Management Studio (SSMS), select **Attach** option of Databases folder.



Then located the database file to import while the log file of restored database will be automatically recognized and imported.

3 Microsoft SQL Server I	Management Studio (Administrator)	Quick Lau	nch (Ctrl	+Q)
File Edit View Proie	ct Tools Window Help			
10.0 8.1.			-	v 🗖 🖌
	Attach Databases		<u> </u>	× 14-7
8 T Y	Select a page Script - ? Help			
Object Explorer	🔑 General			
Connect - ¥ ¥¥ = ▼	Databases to attach:			
□ ■ WIN-AF7E64E0POS	Locate Database Files - WIN-AE7F64EOPQS	- D	\times	tta
🖃 🛑 Databases	Database Data File			
🖃 📁 System Datab	Location:			
🗉 📄 master				
🗉 🗑 model	BWConfiguration_20230512215829_1.mdf			
🗄 📄 msdb	DWD1 agnostics_20230510185109_1. mdr			
🗉 🗑 tempdb	. vs			
🗉 🚞 Database Sna	F 💼 💼 Documents and Settings			
🗄 🗑 DWConfigura	i 🕀 💼 log			
E DWConfigura	i 🕒 🔤 path			>
B DWDiagnosti	C Program Files			
DwDiagnosti	Program Files (x86)			
	Com +- / ProgramData			
	e R			
model 20221	Ser Hecovery			
ReportServer	Con Surtan Valume Information			
ReportServer	WIN + Users			
🗉 🛑 Security	👾 🖮 🚎 Windows			
📧 🛑 Server Objects				
🕀 🛑 Replication	File name: DWDiagnostics_20230510165109_1.mdf Database Data File	es(*.mdf)	\sim	
🕀 🛑 PolyBase				
🗉 📁 Always On High	<u>OK</u>	Cancel		
🚯 🛑 Management	Ready			
🗉 💼 Integration Service	Add Catalog	Re	emove	
🖃 🛃 SQL Server Agent				
🗄 📕 Jobs		OK	Canad	1
👌 Job Activity N		Act	ivate	Windows

Managing Backup Data

The database backup data can be managed from **Physical Backup > Database Backup > Backup Data** page.

⊜ Database Backup Data					
B Restore Points	© Restore Point List				
I Delete	Notice				
All nodes 🗸 🖌	1. Expand the tree menu on the left to browse the database restore points. 2. Each restore point has its timestamp of backup creation.				
⊡-□ 🚦 SQL Server 由 🗅 💭 Database Backup Job2	 You can delete a single restore point by selecting it and click on Delete. You can batch delete restore points by selecting the restore points and clicking on Delete. 				

If you want to delete a restore point or multiple restore points, you can first select target restore point(s) from the left tree view, and click on the **Delete** button. The differential backup and log backup cannot be deleted individually, they will be deleted along with the dependent full backup. When deleting backup data, you need to provide your login password to confirm the deletion, once deleted the data will be unrecoverable.

Database Backup Data								
la Restore Points	[®] Res	Restore Point List MSSQLSERVER(172.18.22.11)model						
≅ Delete							Q Advanced search	
All nodes 🗸 😵 Search	No.	Time Point	🔻 Туре	Oata Size	Written Size	Storage	Operation 0	
SQL Server	1	2023-02-17 15:18:08	Differential Backup	1MB	54.54KB	Local Disk1 (localhost.localdomain(172.18.1.10))	✿ Options ∽	
B MSSQL5ERFVER(172.18.22.11)	2	2023-02-17 15:13:49	Log Backup	1MB	15.45KB	Local Disk1 (localhost.localdomain(172.18.1.10))	한 Options ~	
☐ ○ 2023-02-17 15:10:43 (Full Backup) ☐ ○ 2023-02-17 15:12:40 (Differential Backup)	3	2023-02-17 15:12:40	Differential Backup	1MB	54.58KB	Local Disk1 (localhost.localdomain(172.18.1.10))	호 Options ~	
CO23-02-17 15:13:49 (L0g backup) CO23-02-17 15:18:08 (Differential Backup) CO23-02-17 15:18:08 (Differential Backup) CO23-02-17 15:18:08 (Differential Backup) CO23-02-17 15:18:08 (Differential Backup)	4	2023-02-17 15:10:43	Full Backup	3MB	513.06KB	Local Disk1 (localhost.localdomain(172.18.1.10))		
E ReportServerTempDB					F	age < 1 > of 1 View 10	V Delete	
	Notice	Notice: Once a restore point has been starred, it will be reserved permanently.					습 Set Retention Tag	

For the restore point list in the right column, you need to select a database in the left tree menu to view all restore points of the selected database. Information like backup type, data size, written backup size and storage will be given.

You can add comments to the full backups, differential backups and the log backups, and set retention tags for the full restore point to keep the full backup and its dependent incremental and log backups to not be deleted by retention policy.

A full restore point can be also deleted from the Restore Point List by clicking on Options and then select Delete, the dependent differential and log backups will be deleted along with the full restore point.