

Introducing Cloud Backup for MS SQL Server

The Cloudberry Lab Whitepaper



Cloudberry Lab
cloud storage tools

www.cloudberrylab.com

The need for backup

By performing timely backups, your valuable data is reliably protected against possible loss, corruption and temporary unavailability. Backups enable an IT administrator to save a snapshot of completed work and resume from where it was left off if the errors are detected at the subsequent stages.

The benefit of cloud backup

Alongside local storage media such as NAS, tape, optical disks, internal and external hard drivers, today's backup options include storing your files at remote locations operated by third-party cloud vendors. Cloud-bound data is transmitted over a secure Internet connection to a remote storage destination where it is safely deposited. Cloud customers pay monthly fees based on the price plan and the amount of information accommodated. Whenever necessary, users can initiate data retrieval from the cloud and its subsequent restoration across the local environment. The key benefits of cloud backup can be summarized as follows:

- **Universal accessibility**
Data transmitted to the cloud can be retrieved from any Internet-connected computer provided valid access credentials are granted.
- **Cost efficiency**
Cloud storage is becoming more affordable. The absence of traffic charges in conjunction with storage prices hitting as low as 0.01 US Dollar per gigabyte make cloud storage a viable alternative to traditional on-site solutions.
- **Simplicity of deployment and use**
Obtaining a cloud account, purchasing or modifying the allocated storage volume is a simple and straightforward process. Moving objects to the cloud and fetching them back from it is done effortlessly. Using cloud storage relieves administrators of the need to single-handedly deploy complex storage infrastructure across the local premises, thus saving money and hassle.
- **High endurance**
Cloud data resides at several diverse facilities, ensuring data redundancy and high availability.
- **Storage diversification, expansion of available capacity**
Parallel to performing a local backup, you can duplicate custom data to the cloud. The augmented capacity brings additional flexibility to your backup operations.

A rundown on the SQL Server role

SQL Server is a database management system that can be perceived as auxiliary software designed to aid installed software applications maintain history records and manage traversing data. With its help, applications store, retrieve and process copious amounts of information in the most efficient manner without impacting the overall PC performance. The data that the SQL server aggregates and processes can be either local (supplied by the locally-running software) or remote (applications interacting with the SQL Server over the network, including the Internet). These applications rely on the SQL Server for real-time data transactions.

SQL Server constitutes one of the pillars of the modern IT infrastructure. Still, due to the specifics of background jobs that it performs, IT administrators do not fully recognize the necessity to implement proper database backup. The lack of basic SQL Server skills further impedes this practice.

INTRODUCING CLOUDBERRY BACKUP FOR MS SQL SERVER

Cloudberry Labs, the provider of cloud backup solutions, announces the immediate release of cloudberry Backup for MS SQL Server suite that automates the procedure of backing up SQL Server contents to any of the supported cloud storage platforms. The functionality is easy to use and does not require SQL Server familiarity to perform full or custom database backup. Let us review how cloud backup works in practice by walking through this step-by-step guide for SQL Server backup:

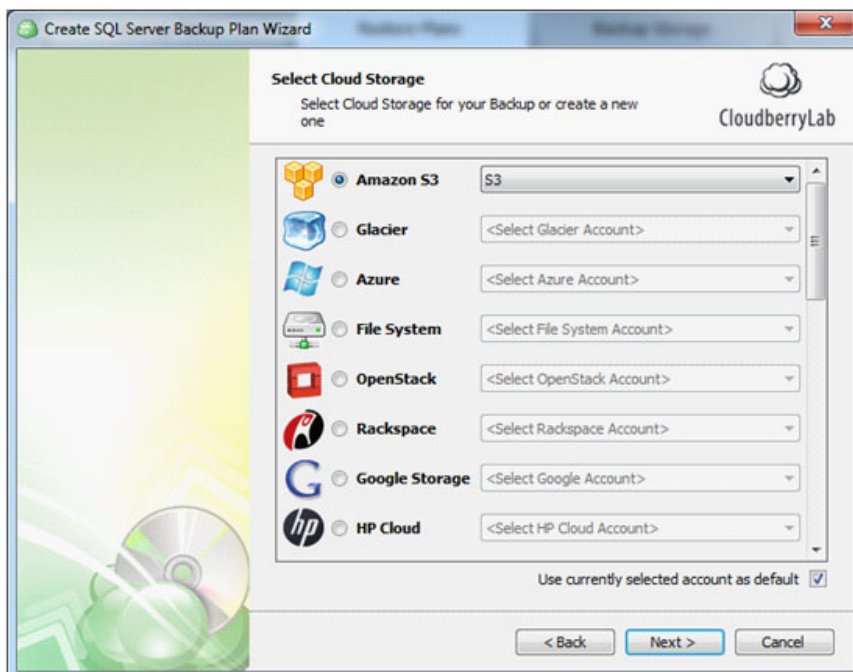
- 1 After installing the suite, launch the program and click the Backup SQL Server button on the toolbar



- 2 The wizard window will open. Click Next to proceed



- 3 At the next screen, choose the desired cloud account. The selected account will be used to transmit, store and retrieve your backup contents. If you do not have an existing account, you can create one at this step. Attention! Individual pricing policy applies based on the choice of cloud vendor



- 4 Enter the necessary credentials to access your account, along with account-specific parameters applicable to particular cloud provider. If you run other cloudberry products on your system, you can import the credentials through the provided hyperlink. If desired, enter the cost estimates and mount the virtual disk by making adjustments on the corresponding tabs

S3 Account

Amazon S3 | Cost Estimates | Virtual Disk

Setup Amazon S3 settings

Amazon S3 account:

You can [import](#) an account from one of CloudBerry products.

Display name:

Access key:

Secret key:

Bucket name:

[Advanced settings](#)

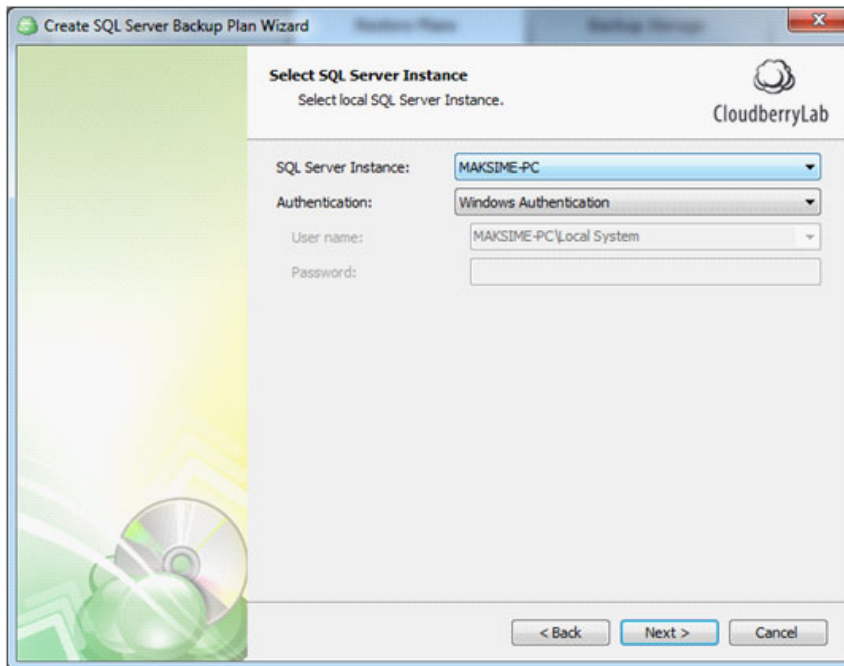
[Specify Proxy Settings](#)

Do you know that you can mount this account as [virtual disk](#) and access your backed up data using any third-party file manager.

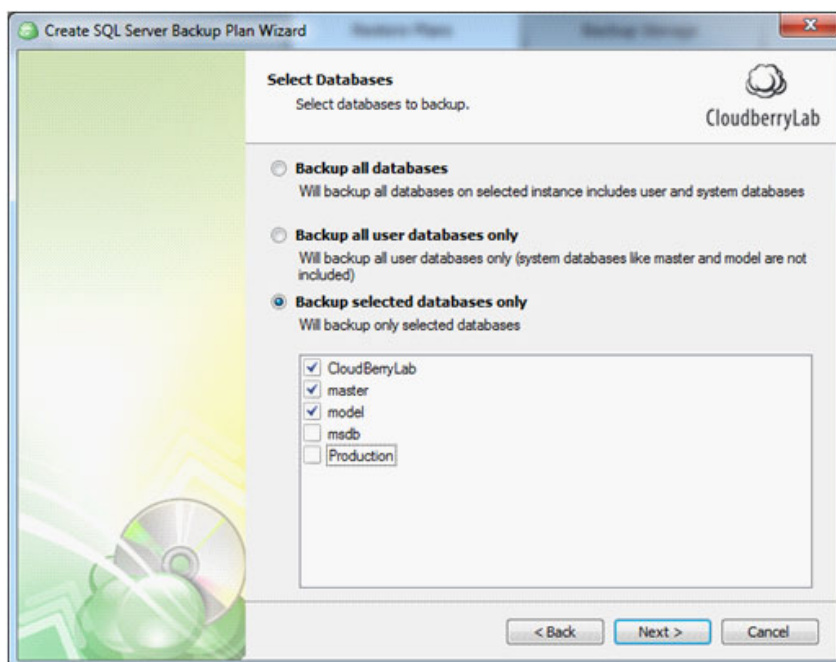
Don't have an **Amazon S3 account** ?
[Create an account](#) - It will take just a few minutes!

OK Cancel

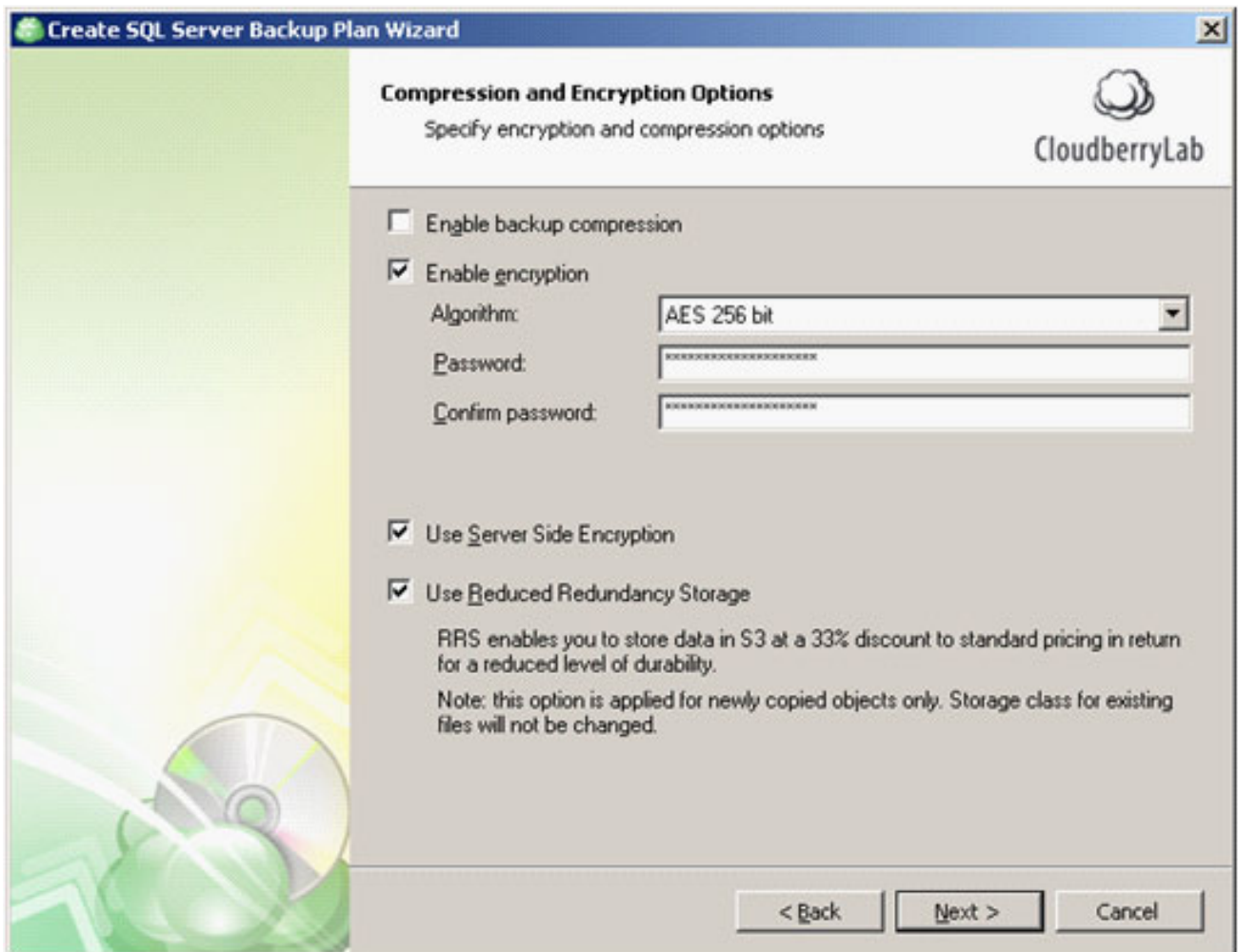
- 5 Specify a new plan name if you so desire. You have an option to save your current plan settings to the cloud so that you can use them in the future
- 6 Select the SQL Server instance that you intend to back up. The available instances are listed in the drop-down menu. Enter the authentication type and provide valid SQL Server access credentials



- 7 Select the databases that need to be backed up. You can back up all databases, or check the individual items shown in the grid



- 8 Moving along the wizard, the window presents optional settings for compression and encryption. If you choose compression, the backup contents will be compressed in order to save consumed cloud space. Encryption enables protecting your files with a strong cypher algorithm that precludes unauthorized viewing. The encryption can be as strong as AES 256 bit. If encryption is selected, you will need to enter your designated key (password) twice. The *Use Server Side Encryption* checkbox instructs the cloud storage provider to apply additional encryption at the server level that is transparent to a user. This is done independently of whether you opted to enforce manual encryption at the previous choice. The *Use Reduced Redundancy Storage option* allows saving storage costs at the expense of decreasing redundancy for your stored media. We recommend you this choice for less critical data and bookkeeping purposes.



Create SQL Server Backup Plan Wizard

Compression and Encryption Options
Specify encryption and compression options

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☐ Enable backup compression

☒ Enable encryption

Algorithm: AES 256 bit

Password:

Confirm password:

☒ Use Server Side Encryption

☒ Use Reduced Redundancy Storage

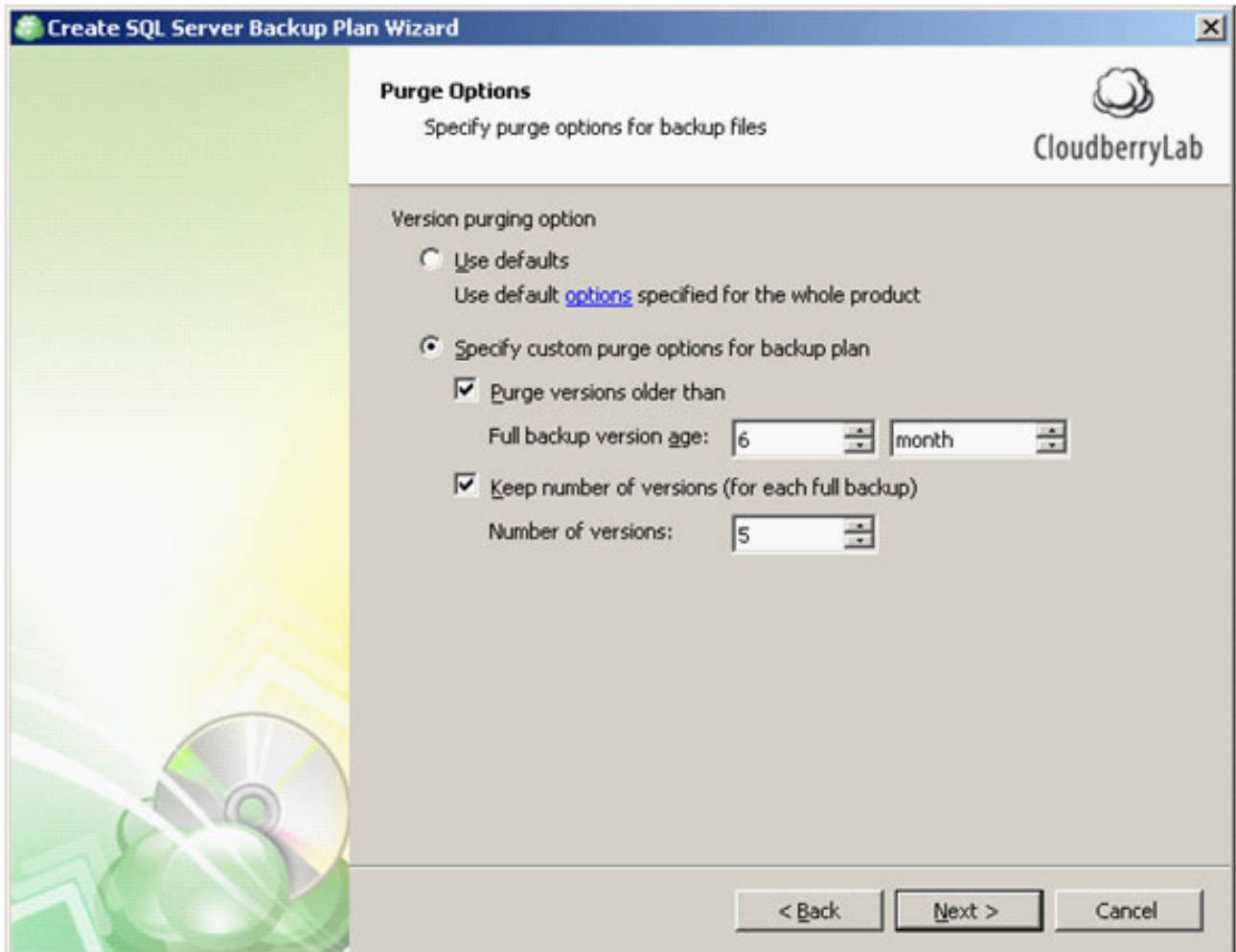
RRS enables you to store data in S3 at a 33% discount to standard pricing in return for a reduced level of durability.

Note: this option is applied for newly copied objects only. Storage class for existing files will not be changed.

< Back Next > Cancel

- 9 The *Purge Options* window lets you specify whether you want your contents automatically deleted from the cloud repository on a schedule. Use this setting with caution. Purge options are as follows:

Use defaults applies the default purge policy. You can review your current settings by clicking the *options* link. If you choose to specify custom purge settings, you can define how often your full SQL database backups should be erased and also stipulate the number of versions that should be retained on the server.

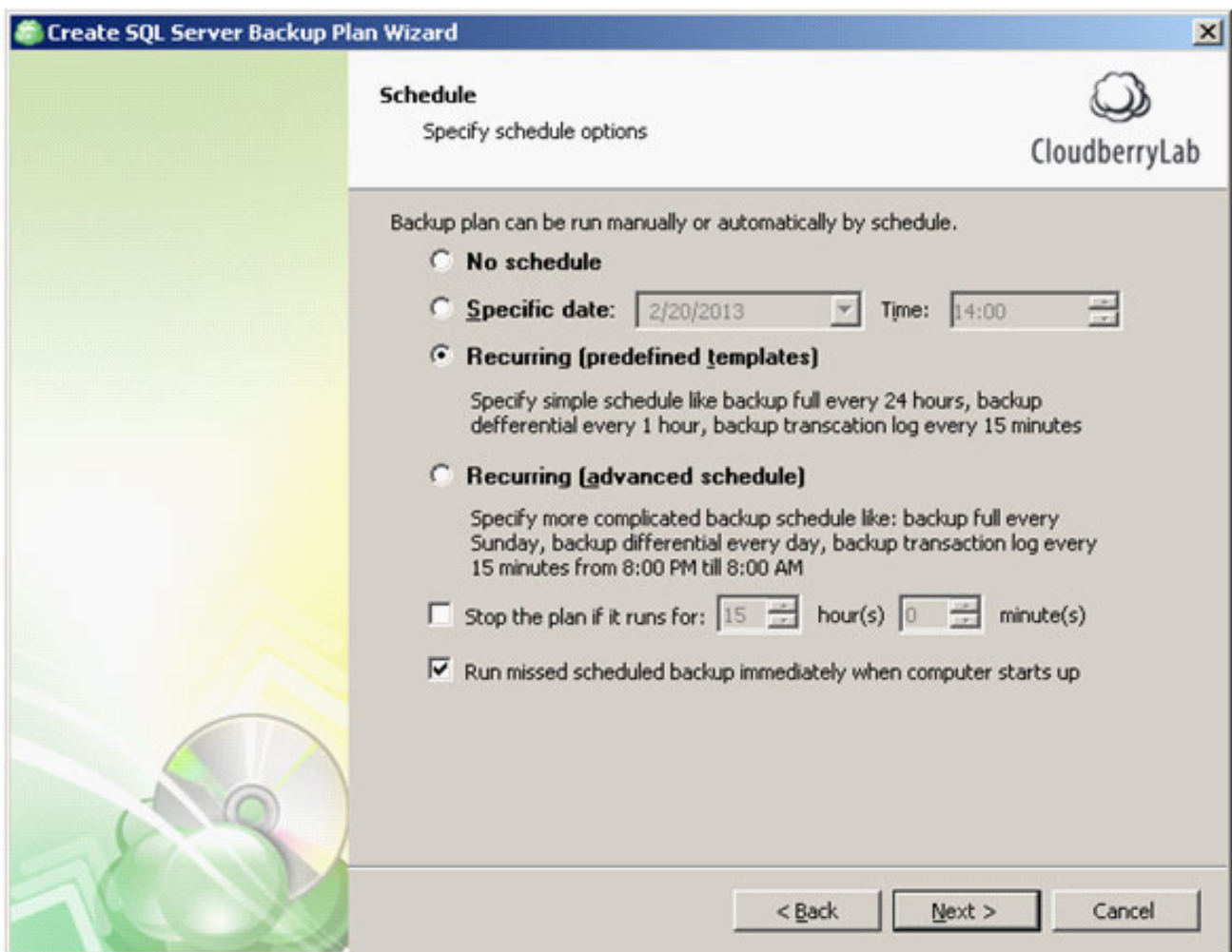


- 10 At this point, you can construct a schedule for automated backups. Either explicitly enter the desired time and date or select the recurring event based on predefined templates.

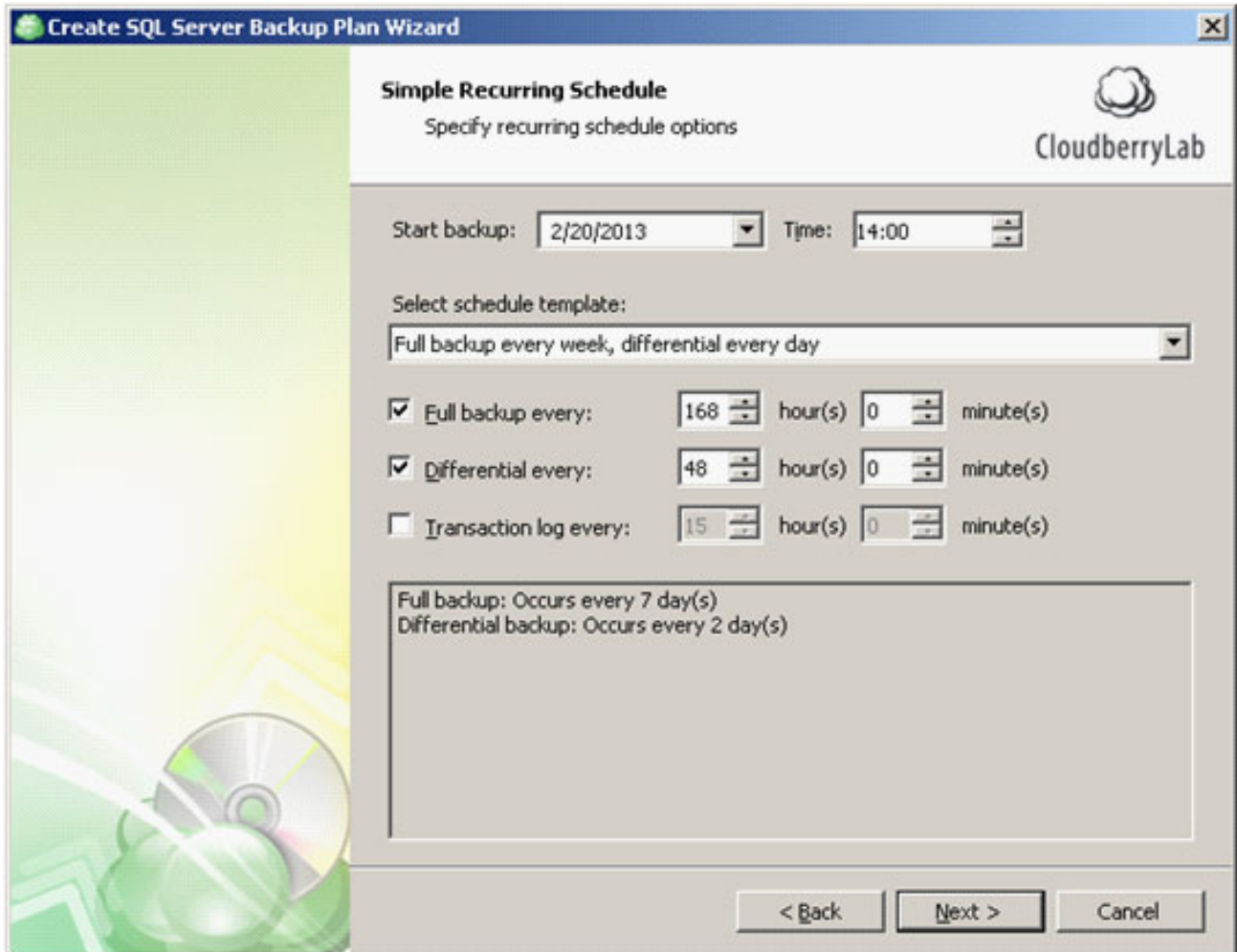
If you opt for a simple schedule based on a predefined template, specify the repetition frequency for both full and differential backups.

The advanced schedule options let you create a more elaborate schedule for automated backups.

As an additional option, you can designate whether to abort the automated backup process if takes longer than the stated amount of time. Finally, you can force failed or missed backups to start over once the host machine boots up



- 11 On the next step you can configure backup schedule parameters that were selected at the previous step. Specifically, define the required windows for the full and differential backups expressed in hours and minutes. You can also stipulate how often transaction logs should be backed up



Create SQL Server Backup Plan Wizard

Simple Recurring Schedule
Specify recurring schedule options

Start backup: 2/20/2013 Time: 14:00

Select schedule template:
Full backup every week, differential every day

☒ Full backup every: 168 hour(s) 0 minute(s)

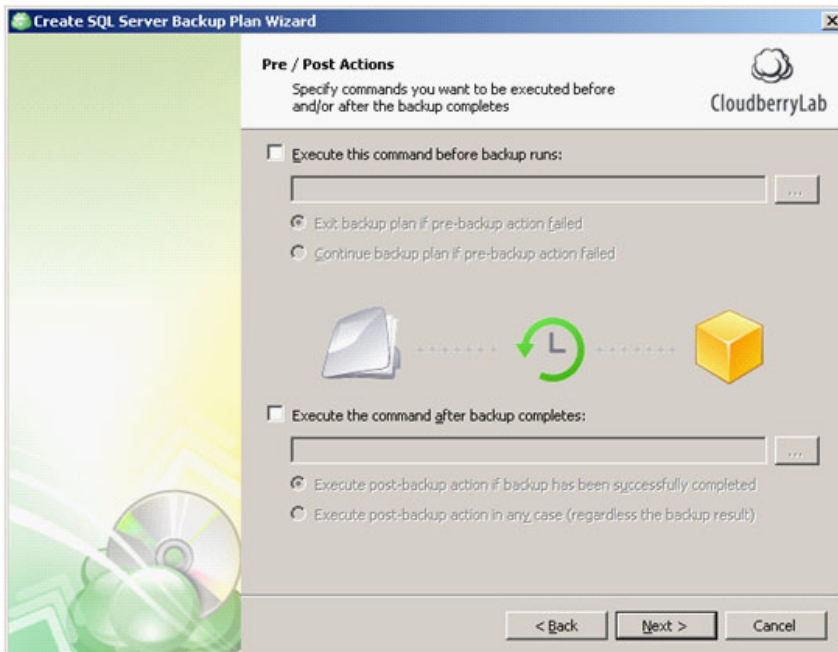
☒ Differential every: 48 hour(s) 0 minute(s)

☐ Transaction log every: 15 hour(s) 0 minute(s)

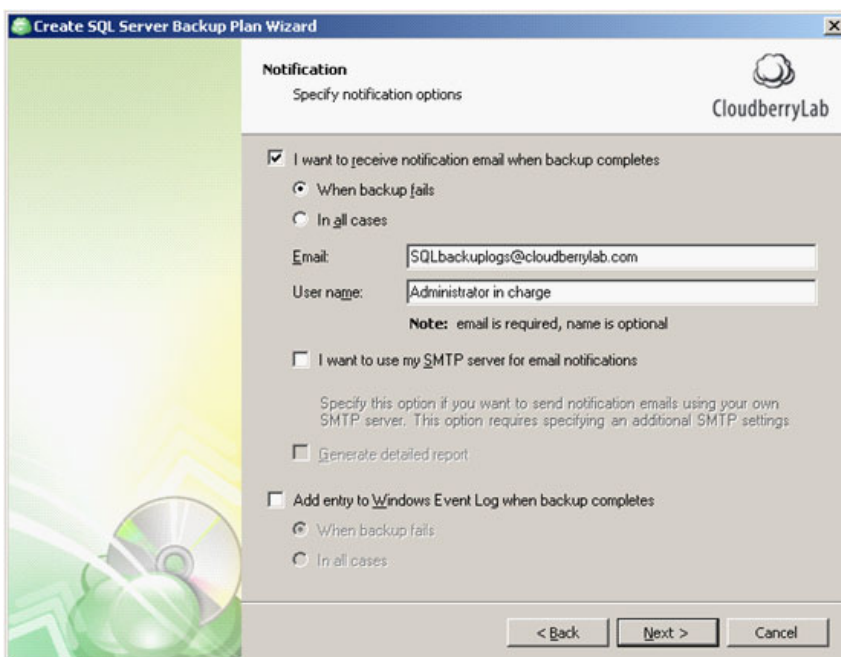
Full backup: Occurs every 7 day(s)
Differential backup: Occurs every 2 day(s)

< Back Next > Cancel

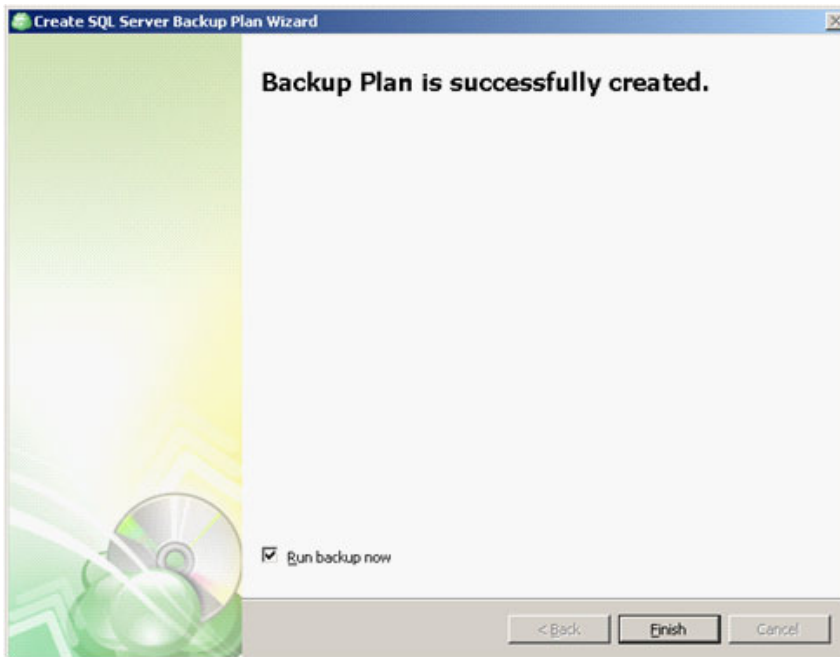
- 12 The next step offers to compose or select the existing custom scripts or commands that should be executed before and after the completion of the actual backup procedure



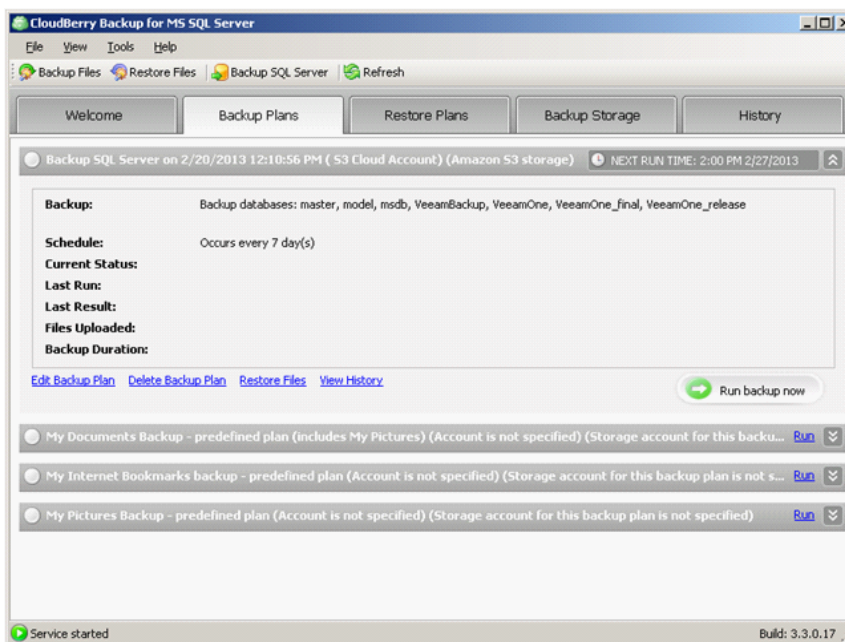
- 13 At the penultimate screen of the wizard, you can specify the notification settings to alert you to the completion state of the last backup. You can enter the intended email recipients and select whether to append the details of the last backup operation to the Windows Event Log data records



- 14 On the next screen, you can validate your backup plan settings. Click Next to finalize your backup plan
- 14 The wizard will inform you that that plan creation has completed successfully. You can click Finish to quit the wizard or select the Run backup now checkbox to run the configured backup job after the wizard is closed



If you opted to skip running a backup task following the wizard, you can do so anytime from the Backup Plans tab found on the program's main page



Recap

The advent of cloud backup enables saving costs and diversify backup operations by allocating important files to data-redundant online storage. SQL Server software is a cornerstone of modern data transaction environment but due to its under-the-hood profile, does not appear as an obvious backup target. Backing up SQL Server databases is an essential task that can be easily fulfilled with MS SQL Server backup suite from cloud-berry Labs.

Links and contacts

Product web page: <http://www.cloudberrylab.com/sql>

Grab the trial download here <http://www.cloudberrylab.com/sql>

E-mail: contact@cloudberrylab.com