

SQL Database Backup Monitoring

Using a Powershell script and custom service



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SQL Database Monitoring

Overview

N-able Technologies has developed a script and a custom service that allows you to monitor the last backup time of a specific database or all databases for a Microsoft SQL Server.

To use it, the script must be run at periodic interval (we recommend every 24 hours, but the actual schedule is customizable), and a custom service must be deployed.

Requirements

- This script was tested on all current Microsoft Windows OS :
 - Windows XP, Windows Vista, Windows 7, Windows Server 2003 (R2), Windows Server2008 (R2).
 - **Windows 8 and Windows Server 2012 are not currently supported.**
- Additionally, the script requires Powershell 2.0 and Microsoft .NET 4.
- You will need an On-Premise N-central server (Hosted servers do not support Custom Services) and a Professionally licensed device with Microsoft SQL Server 2005, 2008 or 2008R2 configured.

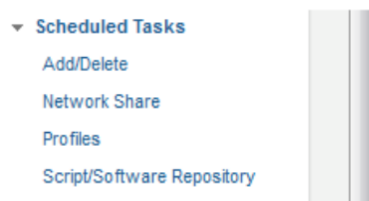
Workflow

The script when run on a local computer will get SQL information for all databases for all instances. A service will then monitor the database instance specified in the Service Details section.

Deployment

Importing and configuring the script

1. Download the **SQL Last Backup Date time** script from the N-able Resource Center (<http://nrc.n-able.com>) under COMMUNITY > Custom Services section. This is typically included with this document.
2. Import the Powershell script into the N-Central Script Repository
 - a. From the Service Organization Level (orange), go to the configuration menu, then to **Scheduled Tasks**,



- b. Select **Script/Software Repository**
- c. Click ADD and choose scripting, then click on BROWSE to select the script:

Details

Type:	Scripting	
Name:	<input type="text" value="Get External IP and GeoLocation"/>	
Description:	<input type="text" value="get external ip addressand GeoLocation of a device"/>	
File Name:	<input type="text" value="GetExternalIPAndLocation.ps1"/>	<input type="button" value="Browse ..."/> <input type="button" value="Cancel"/>
Command Line Parameters:	<input type="text" value="GetExternalIPAndLocation.ps1"/>	

- d. Once uploaded, it will be available for use.
3. Create a **Scheduled Task profile** (as detailed below) to run the script every 24 hours (or as needed).
 - a. From the Customer level (green by default), go to the **Configuration** menu, then to **Scheduled Tasks**, and click on **Profiles**. Select **ADD** scripting task:
 - i. Enter a name (SQL Last Backup Datetime).
 - ii. Select the script from the repository list.
 - iii. Select the rule on which to apply the profile.
 - iv. Select the schedule and set it to recurring.
 - v. Select Custom if it needs to be scanned more frequently than hourly, and add all the times that are required, and leave the other fields default (every day, every month).

Schedule

Type:

Task Timeout: hours

Interval:

Start Time:

Days of the Week:

☒ Every day

☐ Selected days

Sun Mon Tue Wed Thu Fri Sat All None

Days of the Month:

☒ Every day

☐ Last day

☐ Selected dates

Months of the Year:

☒ Every month

☐ Selected months

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 All None

Jan Feb Mar

Apr May Jun

Jul Aug Sep

Oct Nov Dec

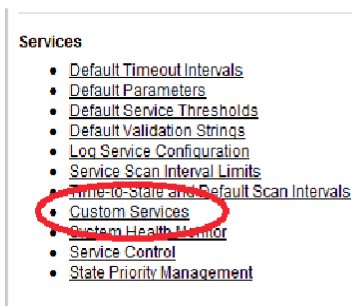
All Clear

- vi. If desired, select notifications to be sent if the task fails to run.
- vii. Save the task. The task will now run at the specified times.

Importing and configuring the custom service

To import the custom service:

1. log on to the NAC by going to <http://YOURSERVER:10000> and logging in with your product administrator
2. go to **Custom Services** within the services section on the left



3. Click on **Import Service**
4. Click on **BROWSE** and select the **SQL Last Backup Datetime** service file (.xml), and then click on **IMPORT**. *Note: No "Service Item File" is required.*

N-central

Setup My Account Help

Setup > Custom Services > Import Custom Service

Import Custom Service

* Required field

For information about how to set up a file for import, refer to the Help.

* Service File ?: Browse...

Service Item File ?: Browse...

Import Cancel

How to Auto-deploy the Script and Service to your environment

1. Create a **Service Template** (you will create one per device class you wish to apply this service to) to add your **SQL Last Backup Datetime** service for you to targeted devices.
 - a. From the Service Organization level (orange by default) head under Configuration > Monitoring > Service Templates
 - b. **ADD** a new Service Template for the class of Server
 - c. **ADD** the **SQL Last Backup Datetime** service with its default thresholds set to ADD/MODIFY.
 - d. **Save** the Template.
 - e. Create a template for each extra device class if needed.
2. Create a **Rule** that will apply both the SQL Last Backup Datetime service template and the script to your chosen devices.
 - a. From the Service Organization level (orange by default) go under Configuration > Monitoring > Rules
 - b. **ADD** a new Rule, name it "SQL Last Backup Datetime Monitoring".
 - c. For the **Filter**, add your SQL filter(s) which are already created in N-central for you. If the existing filters do not correctly identify your devices you will need to create a new one.
 - d. Skip to the **Scheduled Tasks** tab and add your SQL Last Backup Datetime Scheduled Task Profile.
 - e. Under the **Monitoring** tab, and add your **Service Templates** that apply the SQL Last Backup Datetime custom service.

- f. Under **Grant Customer/Site access**, add in all customers that are relevant and choose “Propagate to new customer/sites” if you intend for this to apply to all new clients as well.

The Service and the Script are now deployed to the devices you chose to target with your Filter(s) in the Rule.

Remember that the service will be MISCONFIGURED until you edit the SERVICE DETAILS with the backup job, and the associated script has a chance to run at the time you designated in your Scheduled Task Profile. If it remains misconfigured, please review the REQUIREMENTS at the beginning of this document and ensure your backup job is named appropriately in the service.

If you need to add more than one instance of this service, simply ADD a new one on the Status tab and configure the database instance in the Service Details appropriately. The script will pull data on all instances.

Data being monitored

Information contained within the custom service

W - MTANGUAY-W8: SQL Last Backup Datetime - SUMMARY

Remote Control
Click to connect

Status
Service Details
Thresholds
Self Healing
Reports

Service Status

Current Status: ✖

Scan Time: 2013-Aug-26 13:48

Transition Time: 2013-Aug-26 13:49

Status Details

Description	Value	State	Thresholds
Last Backup Date	01/01/0001 00:00:00	--	--
Is Backup Within Threshold (set in script)	0	Normal	1 - 1
		Warning	2 - 2
		✖ Failed	0 - 0
SQL Instance Name	SUMMARY	--	--
Database Name (if selected in script)	SUMMARY	--	--
Details of Backup Dates	Oldest Backup database : mssqlserver \ master	--	--