Monitoring Network Share Availability

Using a Powershell script and custom service

N-able

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Monitoring Network Shares

Overview

N-able Technologies has developed a script and a custom service that allows any server within an environment to remotely connect to another server, and based on the status, return a pass or fail for availability.

To use it, the script must be run at periodic interval (we recommend 15-30 minutes, but the actual schedule is customizable) with the proper parameters, 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

Workflow

In the scenario below, the N-Central server is outside the customer's network, and the need is to make sure that server B has available share "ADMIN$" as it is used by users for tasks. We have another server at this location, which will be used to run the script and monitor availability.

For this workflow, the script will be scheduled on Server A and the WMI data will be written to Server B.

N-Central server

SERVER_A

SERVER_B
Share to monitor : \\SERVER_B\ADMIN$
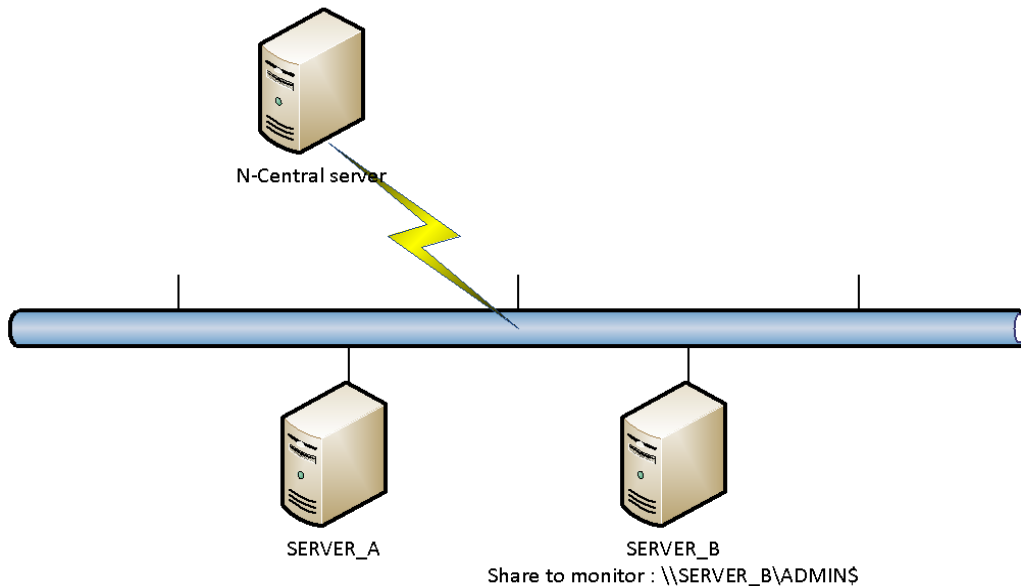
The script is also capable of writing the results to the server where the script runs instead of on the destination server so you could monitor the same server from multiple locations and get individual results tracked.

Another possible workflow is to have one server monitor multiple servers.

Deployment

Importing and configuring the script

1. Download the Network share validation script from the N-able Resource Center (http://nrc.n-able.com) under COMMUNITY > Custom Services section.
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**,
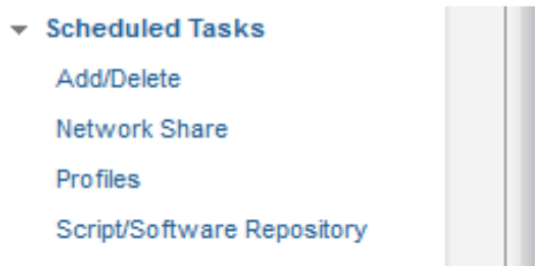
   b. Select **Script/Software Repository**
   c. Click ADD and choose scripting, then click on BROWSE to select the script

   We recommend entering this description to the script as it will explain the required parameters :

   > Verify if a network share is valid.
   > Parameters required : 3
   > script.ps1 REMOTESERVER REMOTESHARE LOCAL
   > or
   > script.ps1 REMOTESERVER REMOTESHARE REMOTE

   d. Once uploaded, it will be available for use

3. Create a Scheduled Task (as detailed below) to run the Network share monitoring script every 15-30 minutes (or as needed). Since the script monitors precise servers and shares, it must be configured individually per server, so repeat those steps for all servers to be monitored

    a. From the Customer level (green), go to the configuration menu, then to Scheduled Tasks, and click on ADD/Delete. Select ADD scripting task

        i. Enter a clear name, for example monitor network share SERVER A to SERVER B on SHARE X

        ii. Select the script from the repository list

        iii. Enter the parameters at the right (see parameters below for more details.)

        iv. Select the device on which to run the script. This must be the server that will connect to the remote share, not the server that contains the share

        v. Select the schedule and set it to recurring

        vi. 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).

        vii. If desired, select notifications to be sent if the task fails to run.

        viii. Save the task. The task will now run at the specified times and write to WMI on either the server that run the script or the one with the share (as per the parameters specified).

Script parameters and options

The script requires 3parameters to work properly: the remote server name or IP, the remote share name (without "\"), and a flag for LOCAL or REMOTE WMI.

Examples :

MonitorNetworkShare.PS1 REMOTESERVER REMOTESHARE LOCAL

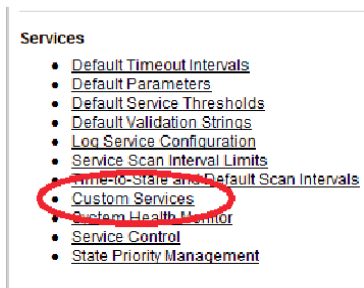MonitorNetworkShares.PS1 SERVERB ADMIN$ LOCAL

The LOCAL/REMOTE flag decides if the script will write to the local WMI or the remote WMI. In most cases, it will be set to REMOTE as the script will write on the server where the share is, so the NORMAL/FAIL flag is on the server where the share resides. If it is set to LOCAL, the NORMAL/FAIL flag would reside on the server where the script is run.
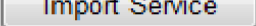
Note : the WMI namespace contains both the server who ran the script, the remote server and the share name, so it is easy to know what is affected if it goes to FAIL status.

Importing and configuring the custom service
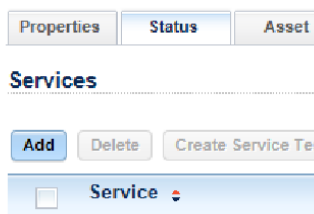
To import the custom service:

1. log on to the NAC by going to httpS://YOURSERVER:10000 and logging in with your product administrator

2. go to **Custom Services** within the services section on the left

   Services
   - Default Timeout Intervals
   - Default Parameters
   - Default Service Thresholds
   - Default Validation Strings
   - Log Service Configuration
   - Service Scan Interval Limits
   - Time-to-State and Default Scan Intervals
   - Custom Services
   - System Health Monitor
   - Service Control
   - State Priority Management

3. Click on IMPORT SERVICE   **Import Service**

4. Click on BROWSE and select the service file (xml file), then click on IMPORT

   NCENTRAL

   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

5. The service is now imported. Go to the N-Central GUI and select the device where to add the service. Go to the STATUS tab and click on ADD

Properties	Status	Asset

   Services

   Add   Delete   Create Service Te

   ☐   **Service** ⇕

6. From the list, enter a 1 besides Network Share Availability

Network Share Availability	1	1

7. Click on OK at the bottom of the list

8. The service will now report on the script data.

Data being monitored

Information contained within the custom service

The monitor will record 5 data points in WMI for N-Central to poll.

1. Last time the script checked for availability: This is the last execution of the script
2. Source Server : this is the server who ran the script
3. Destination Server : this is the server where the share resides
4. Network Share : this is the share name that is monitored
5. Is the network share valid : this is a yes/no flag to set threshold against. 1 means normal and 0 means fail