

Geolocation Monitoring

Using a Powershell script and custom service



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Geolocation Information

Overview

N-able Technologies has developed a script and a custom service that allows to get the public IP of a computer, and with that get the geo-location information for it.

To use it, the script must be run at periodic interval (we recommend every 6 hours, but the actual schedule is customizable), and a custom service must be deployed.

It is important to note that the script gets a geographical location based on the IP address, so this will be approximate. This is meant to get a general location of the computer.

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

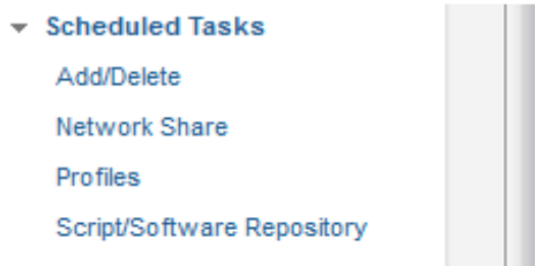
Workflow

The script when run on a local computer uses the services from freegeoip.net to get the public IP address, as well as the country, state, city and general geographical coordinates of the IP address.

Deployment

Importing and configuring the script

1. Download the Get External IP and Location script from the N-able Resource Center (<http://nrc.n-able.com>) under COMMUNITY > Custom Services Policies 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

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.ps 1"/> <input type="button" value="Browse ..."/> <input type="button" value="Cancel"/>
Command Line Parameters:	<input type="text" value="GetExternalIPAndLocation.ps 1"/>

- d. Once uploaded, it will be available for use
3. Create a Scheduled Task profile (as detailed below) to run the script every 6-12 hours (or as needed).
 - a. From the Customer level (green), go to the configuration menu, then to Scheduled Tasks, and click on profiles. Select ADD scripting task
 - i. Enter a name
 - 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: hour

Interval:

Start Time:

Days of the Week:

☒ Every day

☐ Selected days

Sun Mon Tue Wed Thu Fri Sat Sun

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		

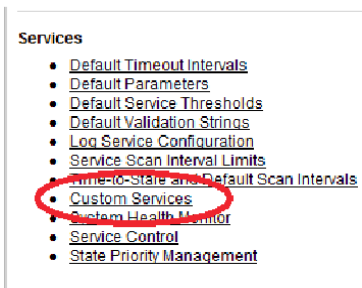
Jan	Feb	Mar
Apr	May	Jun
Jul	Aug	Sep
Oct	Nov	Dec
All	Clear	


- 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.

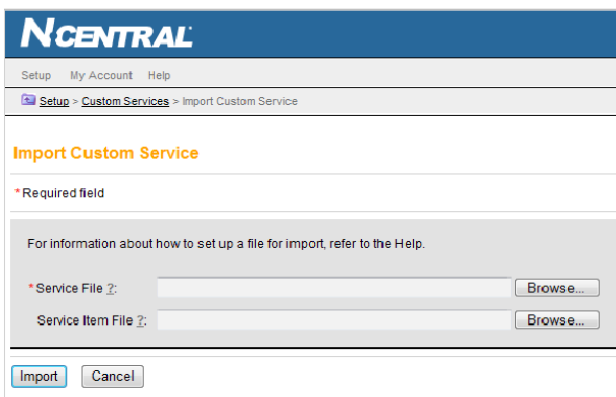
Importing and configuring the custom service

To import the custom service:

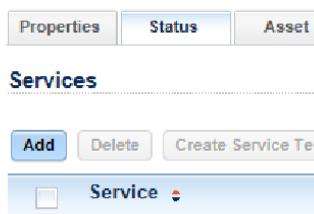
1. log on to the NAC by going to <httpS://YOURSERVER:10000> and logging in with your product administrator
2. go to **Custom Services** within the services section on the left



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

A screenshot of the 'Import Custom Service' form in the N-Central GUI. The form has a title bar with 'N-CENTRAL' and navigation links 'Setup', 'My Account', and 'Help'. Below the title bar, a breadcrumb trail shows 'Setup > Custom Services > Import Custom Service'. The main heading is 'Import Custom Service'. A note indicates that certain fields are required. There are two input fields: 'Service File ?' and 'Service Item File ?', each with a 'Browse...' button. At the bottom, there are 'Import' and 'Cancel' buttons.

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



6. From the list, enter a 1 besides IP Address and GeoLocation

A screenshot of a configuration table in the N-Central GUI. The table has three columns. The first column contains the text 'IP Address and GeoLocation'. The second column contains the number '1'. The third column contains a text input field with the number '0' entered.


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 8 data points in WMI for N-Central to poll.

1. External IP : public ip address
2. Country Code : 2 digit universal country code
3. Country Name: long country name
4. Region Code : 2 digit universal province/state code
5. Region Name : long province/state name
6. City : city name
7. Latitude : geographical latitude
8. Longitude : geographical longitude

 **Remote Control**
Click to connect

Status | Service Details | Self Healing | Reports

 **Service Status**

Current Status: 
Scan Time: 2012-Oct-04 08:14
Transition Time: 2012-Oct-04 08:14

 **Status Details**

Description	Value	State	Thresholds
ExternalIP	66.46.200.2	--	--
CountryCode	CA	--	--
CountryName	Canada	--	--
RegionCode	ON	--	--
RegionName	Ontario	--	--
City	Nepaan	--	--
Latitude	45.35	--	--
Longitude	-75.77	--	--

Cancel