Title AWSNotifier

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# Use Case:

**Build an AWS Instance monitoring service which sends notification using Nexmo APIs.**

This service provide following features:

* Allows user to define Nexmo credentials
* User can set the NexmoSMS app with multiple AWS SNS Topics to send SMS for all the AWS notifications

For e.g. user can create CloudWatch matrices to monitor following:

* + CPU usage >= threshold
  + Disk usage >= threshold
  + Memory usage >= threshold

And map the CW matrices with AWS SNS topic.

User can configure with any AWS services through SNS.

# Introduction

AWSNotifier is one of web base tool which send SMS using the Nexmo API. This tool communicate with SNS and send notification on you configured phone number whenever condition get satisfied on cloud. You have to map this tool once with SNS then later you use created topic with any AWS services.

# Prerequisite

* The following are prerequisite
  + Nexmo API and Secret key
  + Python 2.7

# Features

* Send AWS notification as SMS
* Easy configuration with SNS
* User friendly UI
* Real time notification NO WAIT TIME on receive message.
* Can use with any AWS service with SNS.
* Supported OS Fedora, CentOS 7, Redhat, Ubuntu and Debian.
* Can be used with any AWS service map with SNS.

# Steps to deploy the AWSNotifier App

To install the AWSNotifier app, follow the below OS specific steps

**Linux/Ubuntu/CentOS/Fedora21/RedHat/Debian**

1. Open the respective OS terminal
2. Clone the AWSNotifier repository to the desire directory. ***cd ~******git clone <https://github.com/niravtadvaiya/awsweb.git>***
3. Change the directory to the AWSNotifier.  
   ***cd AWSNotifier***
4. Run the following command to install and configure the Nexmo services.  
   ***sudo python install.py***

This will install following on AWS instance*:*

* Django 1.8.5
* Nexmo library
* Python 2.7

**Windows**

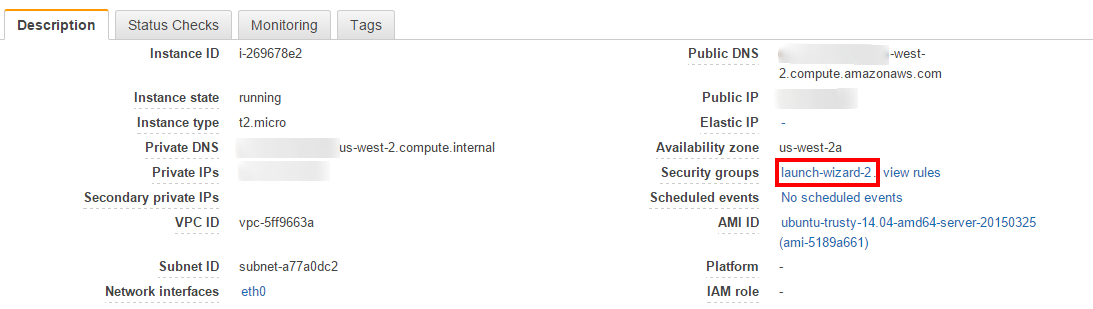
1. Download python from **https://www.python.org/ftp/python/2.7.10/python-2.7.10.msi** and install it in “C:/” drive.
2. Set the environment and system variables using below steps**:  
   Windows 8.x**
   * Open the explorer.
   * Right click on “**This PC**” -> Select the **property**.
   * Click on **Advanced System Settings**.
   * In System Property dialog box click on “**environment variable**” which located at right side corner bottom.
   * Goto the label **system variables** find the variable “**path**” append Python path **;C:/python27**
   * Click on “**Ok**”
   * Make directory **NexmoSetup,** Clone the **AWSNotifier** repository to the **NexmoSetup or** download as zip to the **NexmoSetup.**
   * ***git clone <https://github.com/niravtadvaiya/awsweb.git>***

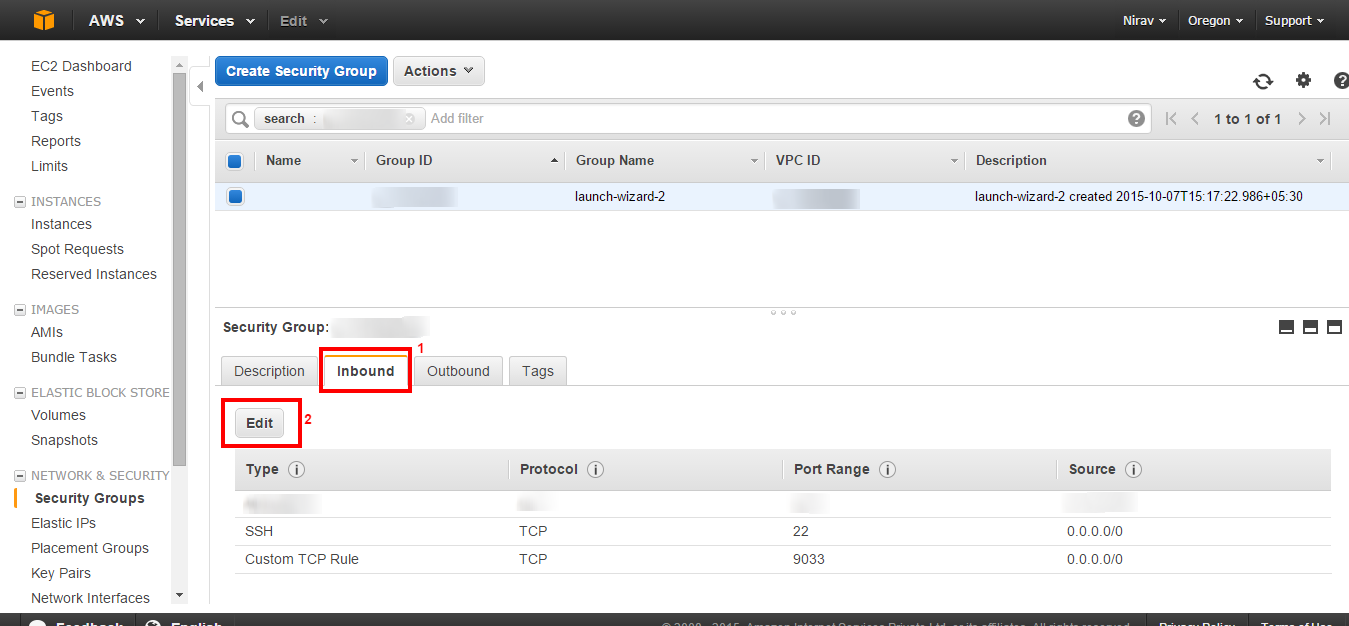
***OR***

* + ***Extract*** the downloaded ZIP file
  + Change directory to AWSNotifier.  
    **cd AWSNotifier**

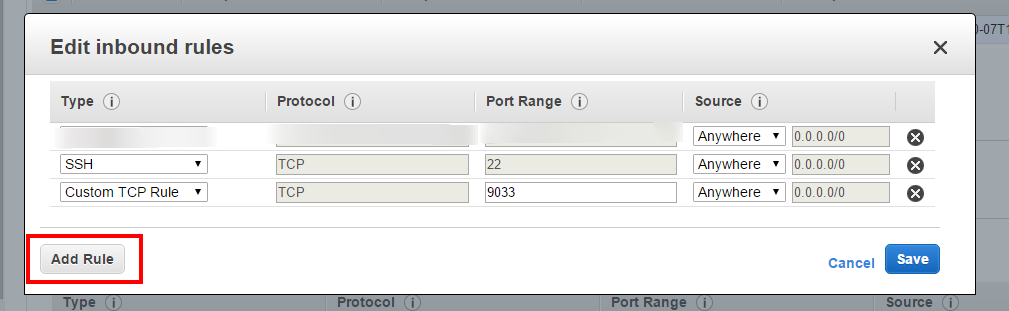
1. Run the following command to install and configure the Nexmo services.
   * ***python install.py***
2. Copy the system generated **aws\_alert.bat** to Startup process. Following are the steps to make it start up process.
   * Start them run command using **Window+R**
   * Type shell:startup
3. Switch to the **AWSNotifier** folder copy the **aws\_alert.bat** to the Start-up folder.
4. Double click on **aws\_alert.bat** once.

## AWS security settings

1. Login to the AWS Web Console.
2. Select EC2 Service,
3. On EC2 dashboard, select the EC2 instance where you have installed the Nexmo **AWSNotifier** app.
4. Click on the **Security groups** link as shown in the image below:  
   
5. Select **Inbound** and click on **Edit** as shown in the image below.

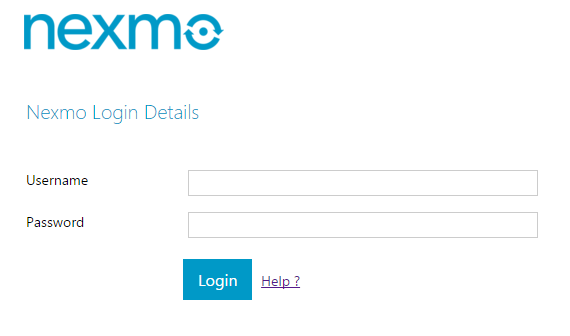
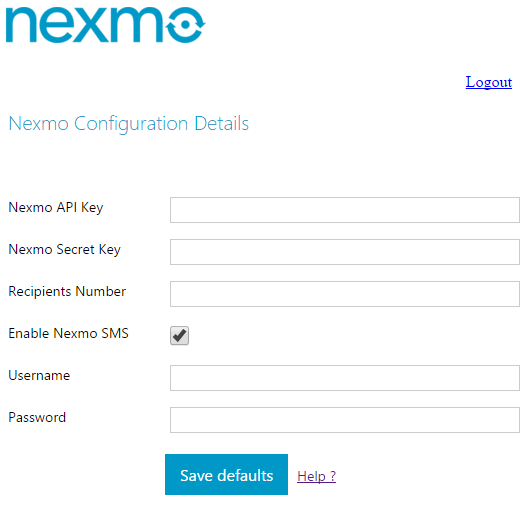


1. In the popup, click on **Add Rule** to define rule to access on internet.
2. Select the **Custom TCP Rule,** and set the port number as **9033** and set source as **0.0.0.0/0** or specific IP to access internet as shown in the below image:

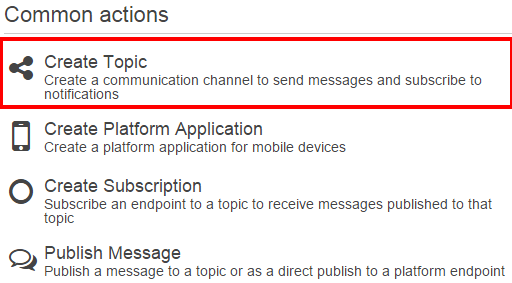
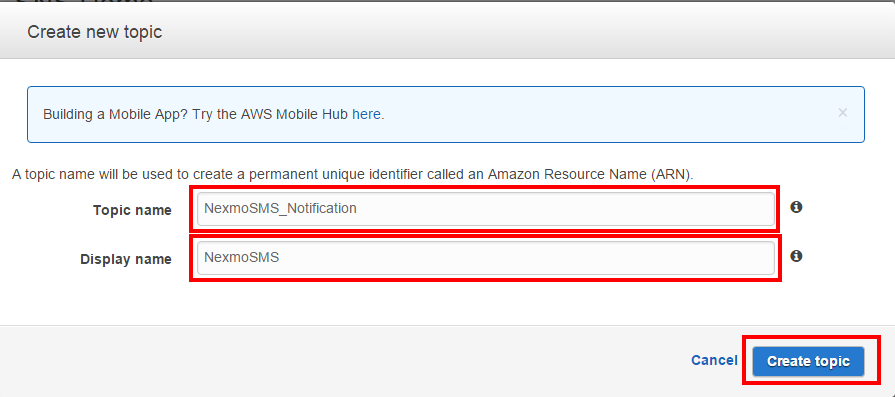
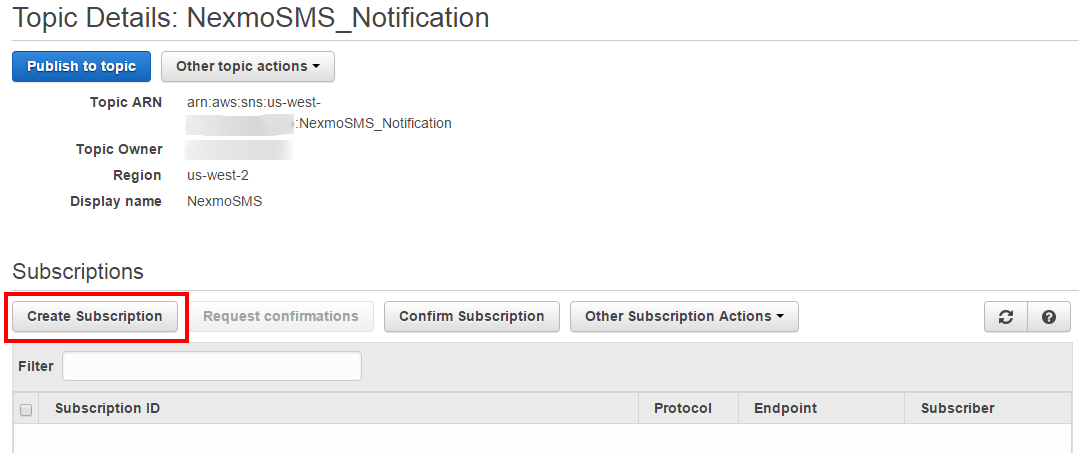
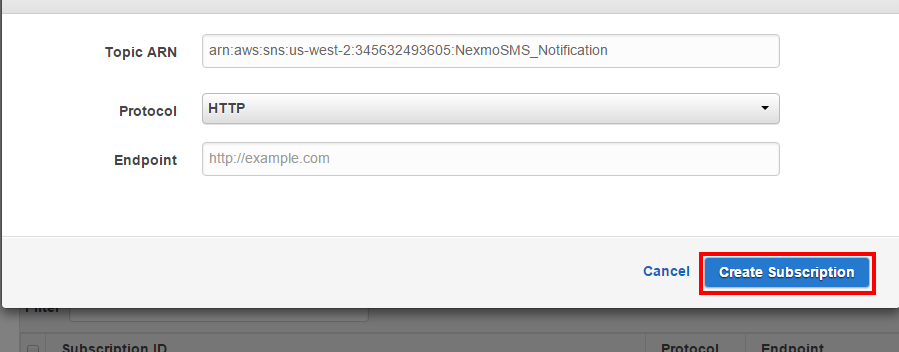


1. Click on **Save**.

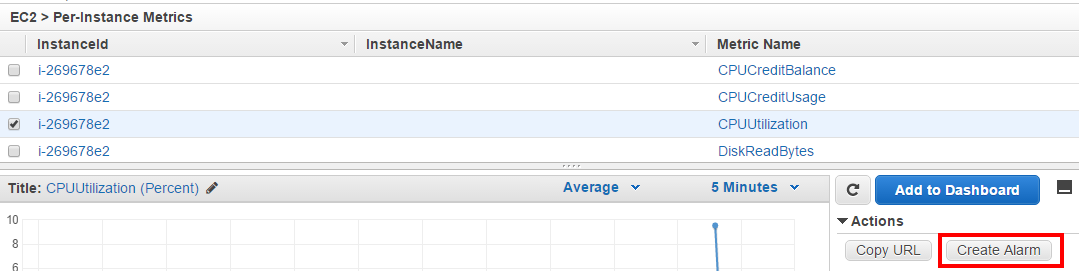
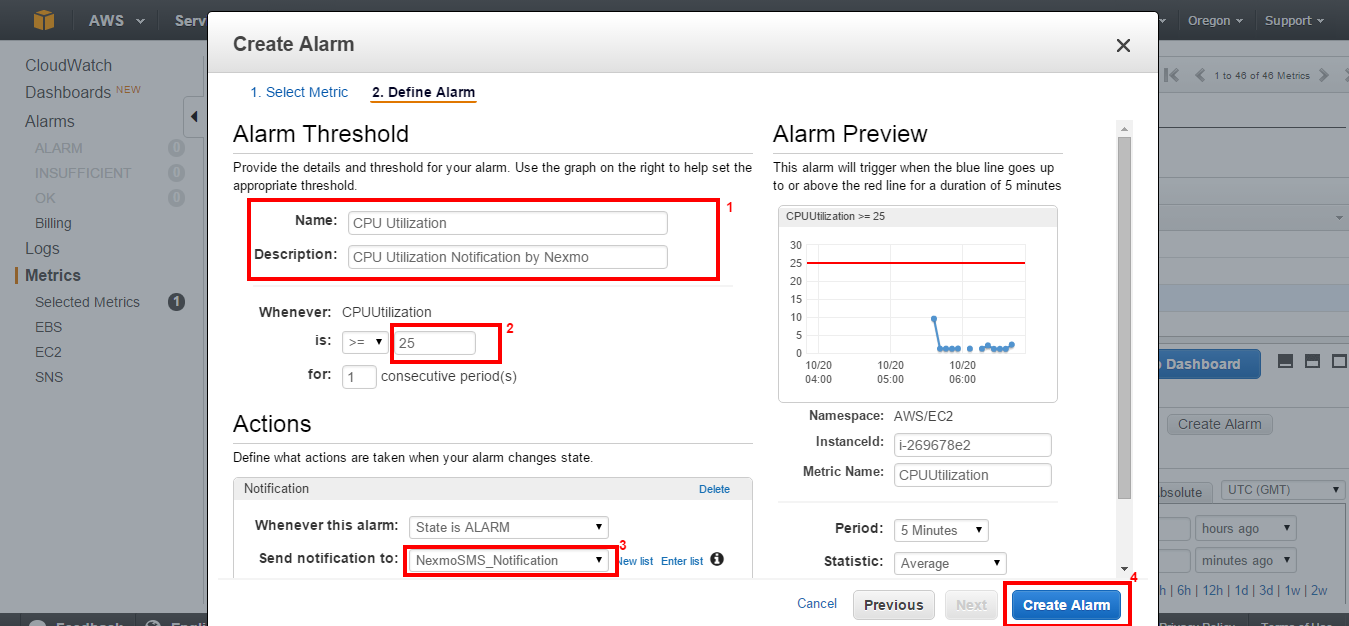
# Steps to use the AWSNotfier APP.

1. Go to the browser and type **<<AWS Instance IP:9033>>**. (Replace AWS Instance IP with your instance public IP address)
2. Login with default credentials username: **admin** and password: **admin.**
3. Click on Login.  
     
   
4. Set the value according to label shown. To get the Nexmo API key and secret key see the appendix. To receive SMS from the Nexmo enable it.  
   
5. Click on the “**Save**”.

Steps to configure SNS on AWS

1. Login to the AWS Web Console.
2. Select the SNS services
3. Click on the “**Create Topic**”.   
   
4. Type the Topic name and Display name.  
   
5. Click on “**Create topic**”.
6. Click on “Create Subscription”.  
   
7. Enter the Topic ARN, Protocol and set endpoint <<AWS\_public\_ip>> as shown in image.  
   
8. Click on “Create Subscription”

# Configure Notification on AWS Cloudwatch

1. Select the CloudWatch Service
2. Click on the **Browse Metrics.**
3. Select the metrics to monitor for example click on “**Per-Instance Metrics**” which is displayed in middle.
4. Select the metrics on which you want to set alarm. For example displayed in screenshot.  
     
   Click on “**Create Alarm**”.
5. After click on **Create Alarm**.  
   
6. Set the threshold to raise notification
7. Select topic **NexmoSMS\_Notification** from the drop down menu.
8. Click on “**Create Alarm**”.
9. You will receive SMS when condition satisfy.

# Appendix

## Get Nexmo API Keys

1. Login to the Nexmo.
2. Click on click on the “**Api Settings**”

