APM System and Threshold Report

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Description:

This python script utility uses the Resource Group and Threshold API to generate a managed system and threshold report for your IBM Application Performance Management environment (ON-PREMISE or SAAS). The report includes a list of all agents connected to the server along with their status, thresholds, resource groups, and other details. The report output is generated in a CSV file format so that users can manipulate the data as desired.

Data captures:
Agent Name
Agent Status
Agent Monitoring Domain
Agent Description
Threshold
ThresholdId
Resource Group
Resource GroupId
In_Server_SitFile

In addition, OnPremises customers can use this script utility to verify if thresholds assigned to a resource group are distributed to associated agent's private_situations.xml on the APM server. This check is performed only for agents where the product code is determinable and equal to the threshold product code and monitoring domain is not equal to ITM. YES is returned if threshold is found, else NO is returned which is written to column In_Server_SitFile. Not_check for all other cases. To use this option, you need to update the onpremises property file and supply the following information:

sys_host : apm_server_fullyQualifiedHostName_or_IP

sys_user : root

sys_pwd : apm_server_password

check_SitFile : YES

NOTE: APM supported version is 8.1.4 or later for ON-PREMISE and SAAS.

Environment Prerequisite:

- Python 3.6.1 or later
  https://www.python.org/ftp/python/3.6.1
- Requests module 2.13 or later
  http://docs.python-requests.org
- Paramiko module
  http://www.paramiko.org
- APM_SystemThreshold_Report.zip

Windows (7) Install

1. Downloaded python zip file that corresponds to your windows platform
   https://www.python.org/ftp/python/3.6.1
2. Unzip file
3. Navigate to the directory where you unzip the file. For example, C:\Python36-32\
   Double click pyton.exe to install
4. Navigate to install_dir\Scripts and install required modules
   pip3.6 install requests
   pip3.6 install paramiko
5. Add python to classpath or use fully qualified path

Linux RHEL6 Install

1. Ensure system is up-to-date
   yum update
2. Install required packages
   yum install openssl-devel
3. Download the tar file
   wget https://www.python.org/ftp/python/3.6.1/Python-3.6.1.tgz
4. Extract the tar file to a temp directory
   tar -xzf Python-3.6.1.tgz
5. update setup.py to add directory where openssl is installed
   cd ../temp_dir/Python-3.6.1 directory
   vim setup.py

   find line that starts with '# Detect SSL support for the socket module (via _ssl)' and

update this list with your openssl path '/usr/include/'

search_for_ssl_incs_in = [
'/usr/local/ssl/include',
'/usr/contrib/ssl/include/'
'/usr/include/'
]

6. Compile the source code
   ./configure --prefix=/usr/local --enable-optimizations
7. Create and install python3.6 binaries
   make
   make altinstall
8. Install required modules
   cd /usr/local/bin
   pip3.6 install requests
   pip3.6 install paramiko
9. Add pthon to $PATH if necessary or use fully qualified path

Linux RHEL7 Install

1. Ensure system is up-to-date
   yum update
2. Install 'development tools'
   yum groupinstall 'development tools'
3. Install required packages
   yum install zlib-devel bzip2-devel openssl-devel ncurses-devel sqlite-devel readline-devel tk-devel gdbm-devel db4-devel libpcap-devel xz-devel
4. Download the tar file
   wget https://www.python.org/ftp/python/3.6.1/Python-3.6.1.tgz
5. Extract the tar file to a temp directory
   tar -xzf Python-3.6.1.tgz
6. update setup.py to add directory where openssl is installed
   cd ../temp_dir/Python-3.6.1 directory
   vim setup.py

   find line that starts with '# Detect SSL support for the socket module (via _ssl)' and update this list with your openssl path '/usr/include/'

search_for_ssl_incs_in = [
'/usr/local/ssl/include',
'/usr/contrib/ssl/include/'
'/usr/include/'
]

7. Compile the source code
   ./configure --prefix=/usr/local --enable-optimizations LDFLAGS="-Wl,-rpath /usr/local/lib"
8. Create and install python3.6 binaries
   Make
   make altinstall
9. Install required modules
   cd /usr/local/bin
   pip3.6 install requests
   pip3.6 install paramiko
10. Add pthon to $PATH if necessary or use fully qualified path

NOTE: Your existing python installation is not overwritten. Python3.6 executables are located in /usr/local/bin for Linux and C:\Python36-32\ for windows.

Running the script:

1. Download APM_System_Threshold_Report.zip file to same temp directory as Python3.6.1 or elsewhere
2. Unzip APM_System_Threshold_Report.zip
3. Navigate to APM_System_Threshold_Report directory
4. Update environment properties file for ON-PREMISE <IPM_env_onprem.properties> or SAAS <IPM_env_saas.properties>
5. Run script
   Windows:
   python report_generation.py IPM_env_onprem.properties
   Linux:
   python3.6 report_generation.py IPM_env_onprem.properties