Documentation for generating the agent logs

Pre Installations needed for running python scripts: -

Pip is the python module which will install the packages and libraries. So firstly we need to check whether “pip” is installed or not on the agent. So type the command pip

If you see the output like this (command not found) then it means, we need to install pip.

Step1:- Installing pip

1). curl "https://bootstrap.pypa.io/get-pip.py" -o "get-pip.py"

2). python get-pip.py

Once we done this two now we are successfully install the pip.

Just check the pip version.

Step2: - Installing Compilation Plugin:- In order to run every python script there is compilation code plugin is need. So for installing gcc plugin we need to type this command

1). Yum install gcc python-devel –y ( this is for centos and redhat)

2) yum install net-tools

Required Libraries In Python:-

Basically we need 3 libraries which are not in built with python 2.7.5

1. Pip install psutil
2. Pip install netifaces
3. Pip install dmidecode

Once we done the pre installation we can run the python scripts.

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Now login into silicus github account, inside the Ensight repository we have a directory call “Ensight”. In this directory we have 4 directories.

1. Inventory
2. Remoteconnections
3. Networkusage
4. PerformanceCounters

Let’s take look the Inventory directory.

Inventory : - This directory contains 3 files

1) inventory\_functions.py

2). network\_Usage.py

3). inventory\_fetch.py

So for running the Inventory\_fetch.py will gives the output of the Inventory. All the functions defined in Inventory\_functions.py and some network related data is in Network\_Usage.py. So we are fetching the data into Inventory\_fetch.py.

Python Inventory\_fetch.py

{'DNSHostName': 'localdomain\n',

'DiskTotalSize': '42.9\n',

'Disks': {'DeviceID: /dev/mapper/VolGroup00-LogVol00': [{'mount\_point': '/'},

{'Total\_disk': '36.97GB'},

{'Percent\_used': 3.4}],

'DeviceID: /dev/sda2': [{'mount\_point': '/boot'},

{'Total\_disk': '0.47GB'},

{'Percent\_used': 22.8}]},

'Domain': 'localhost\n',

'Manufacturer': 'innotek GmbH\n',

'Model': '\tUUID: C81F09C4-F40B-455F-A0B1-60593B080F80\n',

'NICs': {'eth0': [{'broadcast': '10.0.2.255',

'inet': '10.0.2.15',

'netmask': '255.255.255.0'},

{'MAC Address': '52:54:00:c5:83:ad'},

{'Recevied Bytes': '6110344 bytes'},

{'Transmitted Bytes': '3379297 bytes'},

{'DHCP status': 'Dhcp disabled'}]},

This is the sample output of the Inventory and it contains lot more data.

2). Remoteconnections: - This is for the active connections on that vm.

Inside this directory we have one file called remoteconnections.py when we run this script we will get the active network connections on the vm.

Python remoteconnections.py

{

"Connection\_Type": "TCP",

"Local\_Port": 22,

"Remote\_Port": 56095,

"LocalHostName": "localdomain\n",

"LocalIP": "10.0.2.15",

"ReportDateTime": "2016-11-24 16:32:57.458171",

"RemoteIP": "10.0.2.2",

"RemoteHostName": Null

}

3). Networkusage: - This will gives the Nics information and the usage of the vm.

Python network\_functions.py

{

"eth0": [

{

"broadcast": "10.0.2.255",

"netmask": "255.255.255.0",

"inet": "10.0.2.15"

},

{

"MAC Address": "52:54:00:c5:83:ad"

},

{

"Recevied Bytes": "6120154 bytes"

},

{

"Transmitted Bytes": "3386635 bytes"

},

{

"DHCP status": "Dhcp disabled"

},

{

"Hostname": "localhost.localdomain"

},

{

"Reported Time&Date": "2016-11-24 16:35:42.445212"

}

]

}

4). PerformanceCounters: -

1) Total\_Level\_Counters

This directory contains lot of scripts and each script will give the different performance counter values.

For example :- avg\_cpu\_usage\_percent.py will gives the values of cpu usage at total level.

Python avg\_cpu\_usage\_percent.py

{

"AverageValue: ": 0.04,

"Duration: ": "20sec",

"HostName: ": "localhost\n",

"IPAddress: ": "10.0.2.15",

"MaxValue: ": 0.2,

"MinValue: ": 0.0,

"PerformanceCounterCategory: ": "Cpu Percentage Used",

"PerformanceCounterInstanceName: ": "Total",

"PerformanceCounterLabel: ": "avg\_cpu\_usage\_percent",

"PerformanceCounterName: ": "Avg.Cpu\_Percent\_used",

"RecordCount: ": 5,

"ReportDateTime: ": "2016-11-24 16:47:39.914300"

}

{

"Values": [

[

"2016-11-24 16:47:44",

0.0

],

[

"2016-11-24 16:47:49",

0.2

],

[

"2016-11-24 16:47:54",

0.0

],

[

"2016-11-24 16:47:59",

0.0

],

[

"2016-11-24 16:48:04",

0.0

]

]

}

In every script I defined location of the output json file to the /mnt/Backups/Ensight/ directory. That means when we run the script it will generate a json file and put into the /mnt/Backups/Ensight/ directory. Each and every script need to read the serveragentconfig.json file and get the path of the location.

Mounting the network shared drive to the agent: -

The first thing we have to do is we need to mount the network shared drive to each agent. So for that we need IPAddress of that drive. Once we get the IPAddress of that drive we need to run this command on every agent. So that we can able to upload the files to that drive.

mount -t cifs -o username=guest //10.3.0.53/Backups/ /mnt/Backups.