

Troubleshooting notes

1. 1: Important services to take note of

On SA server-

- **service puppetmaster** status | start | stop | restart
- **service tokumx** status | start | stop | restart
- **service puppet** status | start | stop | restart
- **/etc/init.d/collectd** status | start | stop | restart
- **/etc/init.d/rabbitmq-server** status | start | stop | restart
- **service rsa-sms** status | start | stop | restart
- **service mcollective** status | start | stop | restart

On Devices-

- **service puppet** status | start | stop | restart
- **/etc/init.d/collectd** status | start | stop | restart
- **/etc/init.d/rabbitmq-server** status | start | stop | restart
- **service mcollective** status | start | stop | restart

2: Important folders to take note of

/etc/puppet/

/etc/mcollective/

/var/lib/puppet

/etc/collectd.d

/etc/rabbitmq

/var/lib/netwitness/collectd/rrd

/var/lib/netwitness

/opt/rsa/sms

3: Issues related to puppet provisioning

Following are the steps involved in puppet provisioning:

1. SA has puppetmaster installed along with other puppet libraries(rsa-puppet-libs)
2. Other devices(nextgen and jmx) should have puppet agents installed (including rsa-puppet-libs)
3. Puppet agent running on devices will send a CSR(certification signing request) to puppet master i.e. SA
4. From the SA UI, from the appliances page, upon selecting Enable, the certificate signing starts which in turn adds the service on that device to the SA successful provisioning will add all the services running a specific appliance. If any nextgen or jmx service is not running on an appliance, it will not be provisioned.
5. Before starting the puppet agent and provisioning make sure that:
 - a. Time on SA and devices are in sync and time on devices is not ahead of SA
 - b. rsa-puppet-libs is installed on both SA and devices
 - c. /etc/puppet/puppet.conf has the correct node id(obtain the correct node id by running the script- /etc/puppet/scripts/node_id.py)
 - d. /etc/puppet/etc/puppet/csr_attributes.yaml has the correct hostname and ip address of the device.

Provisioning has failed if following happens:

1. The SA UI shows Enable or Error after a long time for the appliance after you started the provisioning process
2. Service for your appliance was not added automatically on the services page
3. Certificates were signed but the services were not added

4: In Case your provisioning or certificate signing fails and you want to go back in time

Perform the following steps to revert back to a clean slate:

1. As soon as the puppet agent is restarted for the first time on the devices, it will generate a CSR which will be sent to the SA server(puppet master) for signing.
2. This CSR(nodeid.pem file) is stored in the following folder on the SA server- /var/lib/puppet/ssl/ca/requests.
 - a. In case something went wrong with your CSR- incorrect hostname/IP/time sync issues and you want to regenerate CSR do the following:
 - i. Stop the puppet agent on the device
 - ii. clear out the contents of the folder- /var/lib/puppet/ssl on the device
 - iii. delete the node_id.pem file on the SA from the following folder- /var/lib/puppet/ssl/ca/requests(this node_id is the node id for the device which has sent the CSR. multiple .pem files should be matched with the system and then deleted)
 - iv. restart the puppet agent on the device. This will regenerate the CSR and the node_id.pem file will be sent again to the SA server from the device
3. In case the provisioning fails in between and you want to start over again, perform the following steps:
 - a. stop the puppet agent on the devices
 - b. run the cleanup.sh script attached in this wiki link on the device(not on SA) for which the provisioning failed.
 - c. Capture the node id from the file /var/lib/puppet/node_id file on the device
 - d. On the SA server move to the following folder- /var/lib/puppet/ssl/ca/signed. locate the node_id.pem file with the node_id gathered above. Delete that specific node file
 - e. Locate the following file on the SA server- /var/lib/puppet/ssl/ca/inventory.txt. Locate the line with the node_id gathered in step -c above and delete that full line and save the inventory.txt file.
 - f. Easier way to perform cleanup on the SA node is to run /etc/puppet/scripts/delNode.py script with parameter as the node_id that you want to reprovision that was previously added.
 - g. restart the puppet agent on the device. This will regenerate the CSR and the node_id.pem file will be sent again to the SA server from the device
 - h. Restart the provisioning process from the SA UI again for that device.

5: Main reasons why your provisioning might fails

There might be several reasons which could cause the provisioning to fail. I am adding some of the reasons but the list might not be exhaustive:

1. Time sync issues between SA and devices
2. Hostname resolution issues
3. incorrect puppet.conf, csr_attributes.yaml and mcollective conf files
4. incorrect node id values for a device
5. device services not running
6. RabbitMQ and mcollective services are integral to discovery process. Make sure, the mcollective and RabbitMQ services are running before selecting appliance discovery. discovery of new appliances will FAIL if the RabbitMQ is not running on SA or the SA process is not able to communicate with RabbitMQ service.