ATOM Remote Agent Deployment Guide

version 10

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Purpose of this document

This document is intended to be used for deploying ATOM Cloud Agent in customer Data Center to communicate with Network Devices and ATOM Cloud servers.

Intended Audience

Network administrators and operators

ATOM Cloud Overview

Anuta Networks ATOM Cloud is a Software-as-a-Service offering. It delivers Assurance, Telemetry, and Orchestration for Multi-Vendor Networks.

Anuta ATOM Cloud enables enterprises and service providers to rapidly design and provision network services, collect real-time telemetry, develop in-depth network analytics, ensure compliance and provide service assurance for multi-vendor physical and virtual infrastructure.

Anuta ATOM Cloud offering takes a cloud-first approach and is hosted within a Tier-1 cloud. The underlying infrastructure is validated and is governed by a quality assurance and regulatory compliance process. With Anuta ATOM Cloud, networking teams can deliver services faster, eliminate human errors, avoid security violations, reduce OpEx and meet SLAs with exceptional high availability.

Key Benefits of the Anuta ATOM Cloud offer include:

- Hassle-free deployments and upgrades
- Flexible & Secure connectivity to enterprise networks
- Network Orchestration and Closed-Loop Assurance for 45+ vendors
- Auto-Scale to satisfy fluctuations in demand
- Real-time Analytics and Historical Reports
- Flexible Pay as you Grow license model
- SDK and other productivity tools for rapid customization.

ATOM Agent Overview

The ATOM Cloud Agent is an application that runs on a Linux server within your infrastructure as a docker container. ATOM agents have to be installed on each location of your infrastructure.

ATOM agents can be assigned with multiple CIDR blocks to manage the devices. It is used to communicate, collect and monitor the networking devices in your infrastructure using standard protocols. Once the agent collects the data, it gets encrypted and sent to Anuta ATOM Server over an outgoing SSL Connection.

One Agent can typically manage hundreds of devices. However, it depends on many other factors such as device type, data collection, size of the data, frequency etc. Checkout ATOM Agent Hardware requirements for further information.

Agent Requirements and Installation

Hardware Requirements:

ATOM Agent has to be deployed on the Customer corporate network and it needs the following hardware at the minimum.

Component	**Requirements Description**
1 Virtual Machine	Storage reserved in ESXi = 40 GB (SSD) ● CPU - 4 vCPU ● Memory - 8GB

Network Requirements

ATOM Agent needs to communicate with the network devices to collect and transfer the data to atom cloud.So, it requires certain ports to be opened in a secured network. Below is the sample network interaction diagram for agent communication.

1. Required Ports between Agent and Managed Network Devices

Below are the ports required by the Agent to communicate with targeted network infrastructure.

Port	Protocol	Type	Use Case
21	TCP	Both	Data Transfer using FTP (Remote Agent <==> Device)
22	TCP	Outbound	SSH Communication to the targeted Network Device
23	TCP	Outbound	Telnet Communication to the targeted Network Device
161	UDP	Outbound	Data Collection via SNMP through MIBs from the targeted Network Device
162	UDP	Inbound	SNMP Traps receiver from the targeted Network Device
514	UDP	Inbound	Syslog Message receiver from the targeted Network Device
830	TCP	Outbound	NetConf Communication to the targeted Network Device

2. Required Ports between Agent and ATOM Cloud Infrastructure

Below are the ports required by the Agent to transfer the data collected from network devices to ATOM Cloud with TLS encryption.

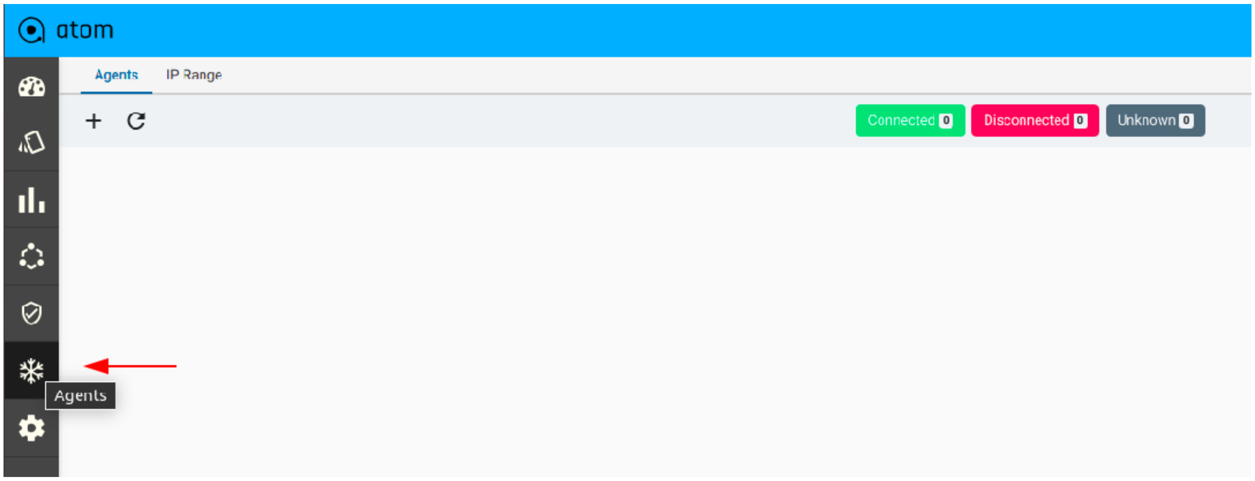
Port	Protocol	Type	Use Case
7000	TCP	Outbound	Remote agent to ATOM Cloud Server (it is a proprietary port) *Note: Connection is always initiated by the ATOM Agent and which acts as client in server-client model*

ATOM Agent Installation

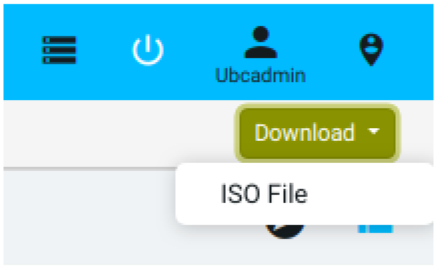
The ATOM Agent manages your network infrastructure. You need to install an Agent for serving the devices.

Below is the procedure to install an ATOM agent on a customer corporate network.

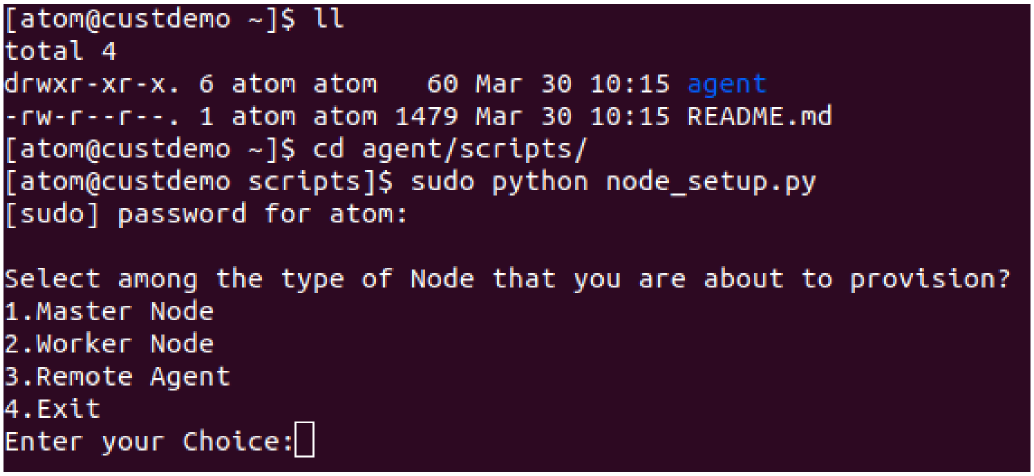
1. Navigate to **Agents Page** from Navigation bar.



2. Click on the **Download** dropdown on top right side and choose ISO File. This will fetch the latest version of **iso** file from minio repository.

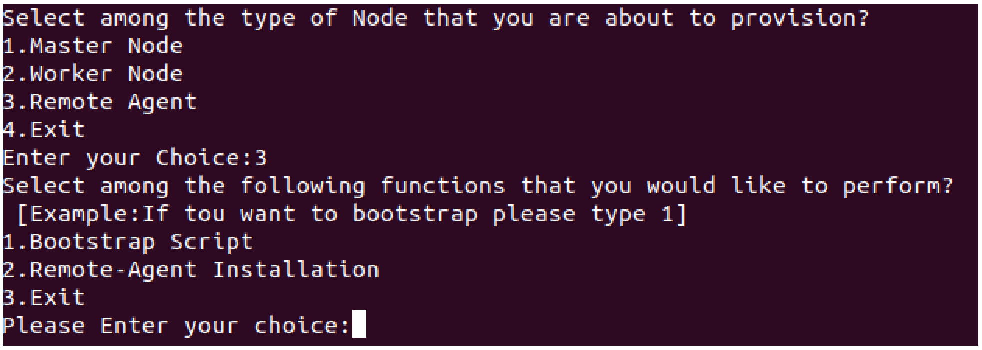


3. Once the ISO is downloaded, create a VM out of it.
   - User would be prompted to change the password on the first login.
     - Use default credentials : atom/secret@123
   - Once the password is updated and login is successful go through the README document to understand high level details of how to install the remote agent.
   - Run the node_setup.py which is present in the /agent/scripts path using sudo privileges as shown below:



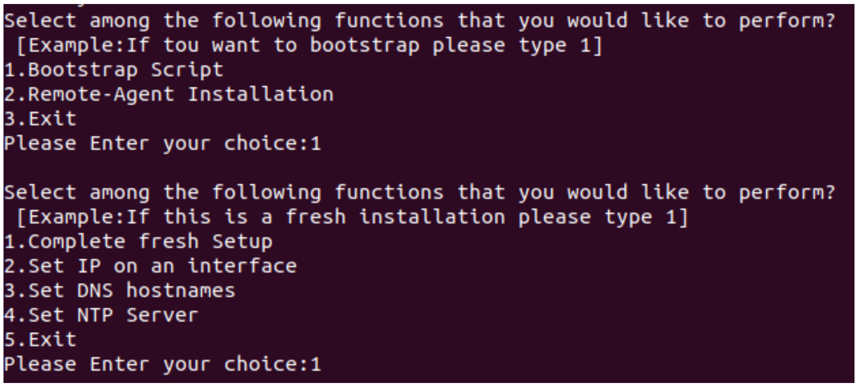
```
[atom@custdemo ~]$ ll
total 4
drwxr-xr-x. 6 atom atom   60 Mar 30 10:15 agent
-rw-r--r--. 1 atom atom 1479 Mar 30 10:15 README.md
[atom@custdemo ~]$ cd agent/scripts/
[atom@custdemo scripts]$ sudo python node_setup.py
[sudo] password for atom:

Select among the type of Node that you are about to provision?
1.Master Node
2.Worker Node
3.Remote Agent
4.Exit
Enter your Choice:
```

- Enter 3 when prompted for choice to provision the remote agent. Choose among the following:
    1. Bootstrap Script: This script will initially help you set up basic Network Connectivity, Hostname configuration and NTP settings.
    2. Remote-Agent Installation: This script will be used to bring up the remote agent software. Complete steps 4-8 before invoking this.



```
Select among the type of Node that you are about to provision?
1.Master Node
2.Worker Node
3.Remote Agent
4.Exit
Enter your Choice:3
Select among the following functions that you would like to perform?
 [Example:If tou want to bootstrap please type 1]
1.Bootstrap Script
2.Remote-Agent Installation
3.Exit
Please Enter your choice:
```

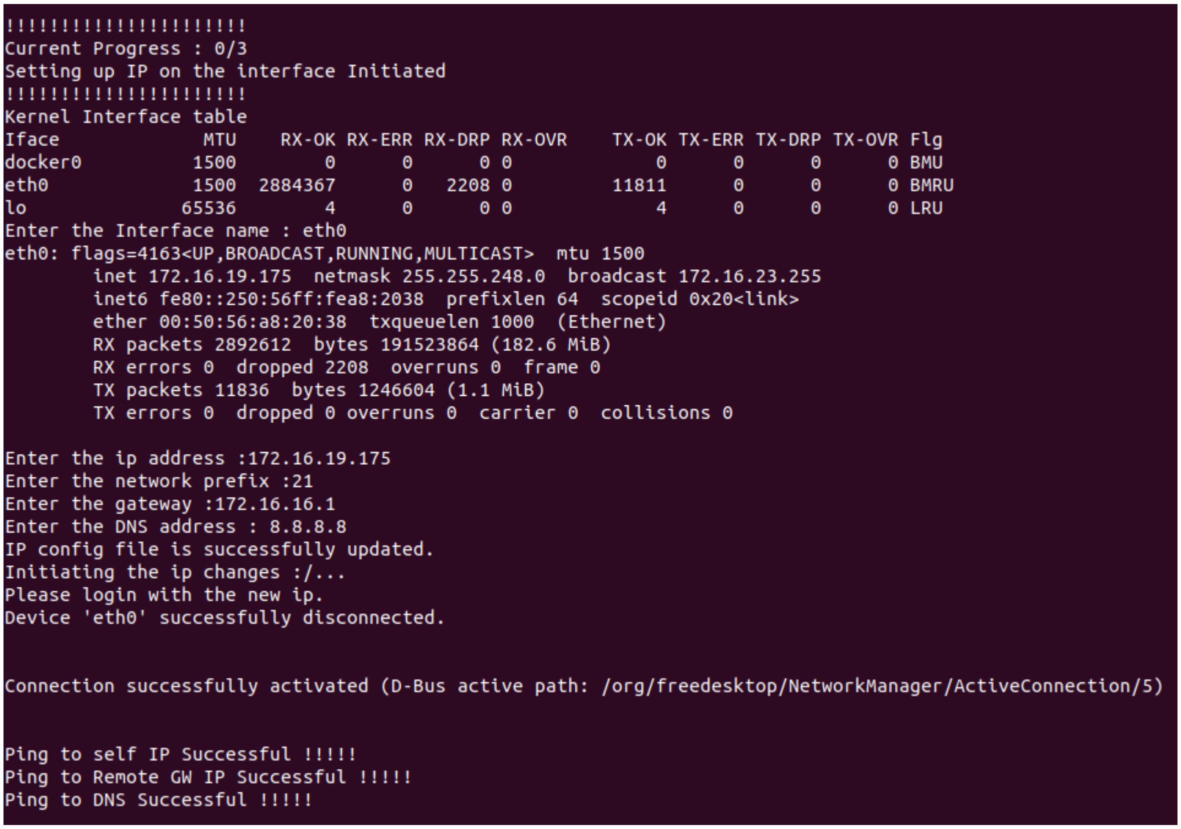
- Enter 1 to proceed with the bootstrap function and select the complete fresh setup by again choosing 1 as shown below:



```
Select among the following functions that you would like to perform?
 [Example:If tou want to bootstrap please type 1]
1.Bootstrap Script
2.Remote-Agent Installation
3.Exit
Please Enter your choice:1

Select among the following functions that you would like to perform?
 [Example:If this is a fresh installation please type 1]
1.Complete fresh Setup
2.Set IP on an interface
3.Set DNS hostnames
4.Set NTP Server
5.Exit
Please Enter your choice:1
```

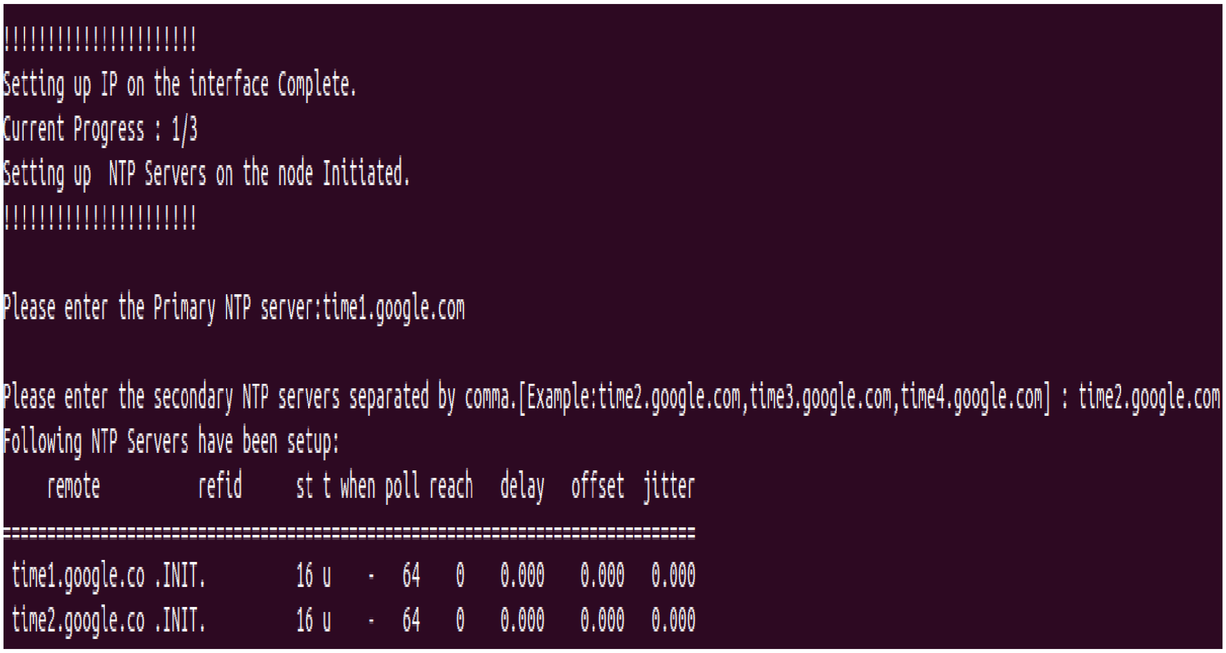
- Provide the following inputs as requested by the script:
    1. Interface Details to be provisioned along with relevant CIDR info.
    2. DNS Server Information
    3. NTP Server Information
    4. Hostname of the VM along with the hostname-ip to bind.

Refer the screenshot below:



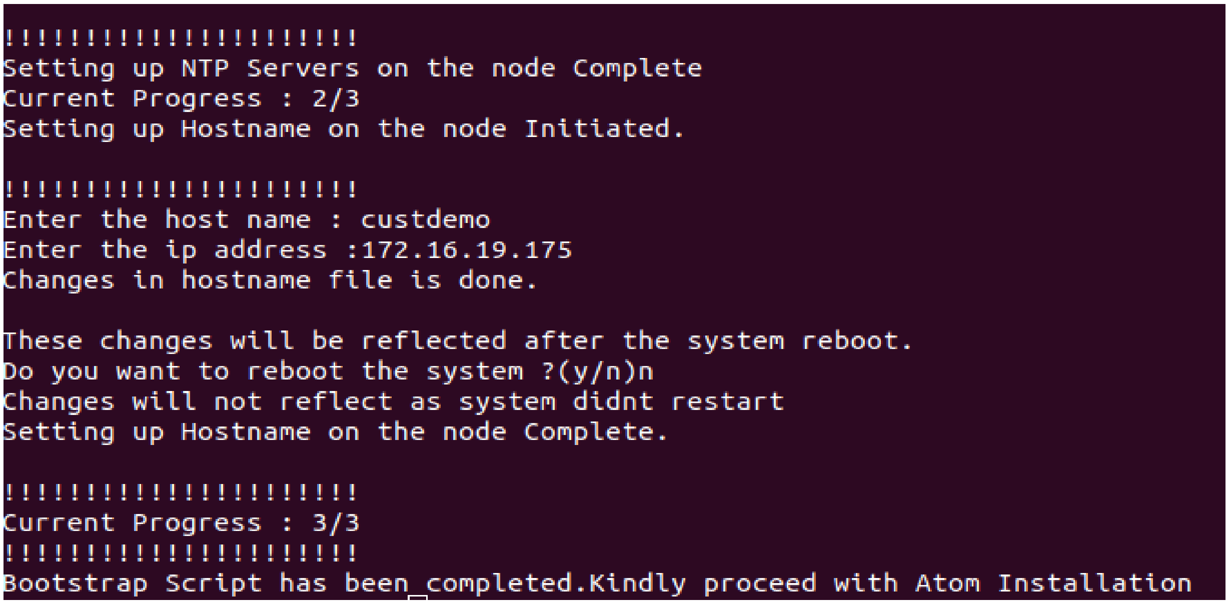
```
!!!!!!!!!!!!!!!!!!!!!!
Current Progress : 0/3
Setting up IP on the interface Initiated
!!!!!!!!!!!!!!!!!!!!!!
Kernel Interface table
Iface             MTU    RX-OK RX-ERR RX-DRP RX-OVR    TX-OK TX-ERR TX-DRP TX-OVR Flg
docker0          1500        0      0      0 0             0      0      0      0 BMU
eth0             1500  2884367      0   2208 0         11811      0      0      0 BMRU
lo              65536        4      0      0 0             4      0      0      0 LRU
Enter the Interface name : eth0
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.16.19.175  netmask 255.255.248.0  broadcast 172.16.23.255
        inet6 fe80::250:56ff:fea8:2038  prefixlen 64  scopeid 0x20<link>
        ether 00:50:56:a8:20:38  txqueuelen 1000  (Ethernet)
        RX packets 2892612  bytes 191523864 (182.6 MiB)
        RX errors 0  dropped 2208  overruns 0  frame 0
        TX packets 11836  bytes 1246604 (1.1 MiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

Enter the ip address :172.16.19.175
Enter the network prefix :21
Enter the gateway :172.16.16.1
Enter the DNS address : 8.8.8.8
IP config file is successfully updated.
Initiating the ip changes :/...
Please login with the new ip.
Device 'eth0' successfully disconnected.


Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/5)


Ping to self IP Successful !!!!!
Ping to Remote GW IP Successful !!!!!
Ping to DNS Successful !!!!!
```

Network Configuration Details



```
!!!!!!!!!!!!!!!!!!!!
Setting up IP on the interface Complete.
Current Progress : 1/3
Setting up  NTP Servers on the node Initiated.
!!!!!!!!!!!!!!!!!!!!

Please enter the Primary NTP server:time1.google.com

Please enter the secondary NTP servers separated by comma.[Example:time2.google.com,time3.google.com,time4.google.com] : time2.google.com
Following NTP Servers have been setup:
     remote           refid      st t when poll reach   delay   offset  jitter
==============================================================================
 time1.google.co .INIT.          16 u    -   64    0    0.000    0.000   0.000
 time2.google.co .INIT.          16 u    -   64    0    0.000    0.000   0.000
```

NTP Server Configuration Details



```
!!!!!!!!!!!!!!!!!!!!!!
Setting up NTP Servers on the node Complete
Current Progress : 2/3
Setting up Hostname on the node Initiated.

!!!!!!!!!!!!!!!!!!!!!!
Enter the host name : custdemo
Enter the ip address :172.16.19.175
Changes in hostname file is done.

These changes will be reflected after the system reboot.
Do you want to reboot the system ?(y/n)n
Changes will not reflect as system didnt restart
Setting up Hostname on the node Complete.

!!!!!!!!!!!!!!!!!!!!!!
Current Progress : 3/3
!!!!!!!!!!!!!!!!!!!!!!
Bootstrap Script has been completed.Kindly proceed with Atom Installation
```

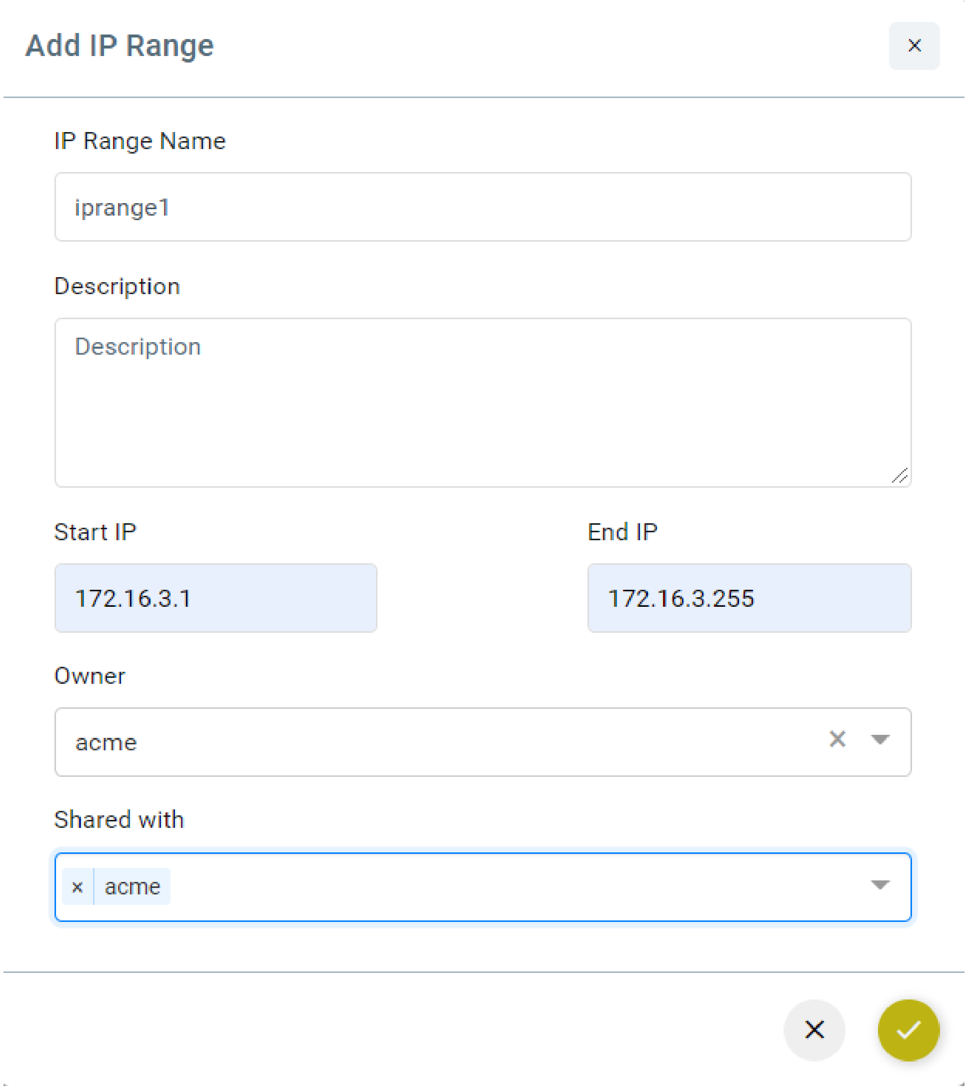
Hostname Configuration Details

Once the bootstrap is complete proceed with the next steps. [Note: Hostname changes would be reflected on reboot only. Select yes to reboot if you wish to change the hostname]

4. You can manage devices assigning a range of IP addresses (belonging to the devices) to the Agent. Each Agent can be assigned a different IP range, which is used to determine the tasks that can be handled by the Agent:
   - Discovery Job
   - Inventory Job
   - Device monitoring
   - Configuration retrieval
   - Syslog and SNMP trap processing
   - Service provisioning

   To add an **IP range** to the Agent, do the following:

   1. Navigate to **Agents** Page from left navigation bar
   2. In the top navigation tab, click **IP Range** > **Add**
   3. In the **Create IP Range** screen, enter the values as follows:
      1. **Range Name**: Enter a name for the Agent
      2. **Start IP**: Enter an IP address that should be the first IP address of the range
      3. **End IP**: Enter an IP address that should be the last IP address of the range
      4. **Owner**: Owner will be the tenant name.
      5. **SharedWith**: If it's not shared with the subtenants, only the tenant name will be there. Eg. **acme**. This range can be shared with the subtenants as well. Eg. **acme.*** (In this case, this range will be shared with all the subtenants)



Add IP Range

IP Range Name: iprange1

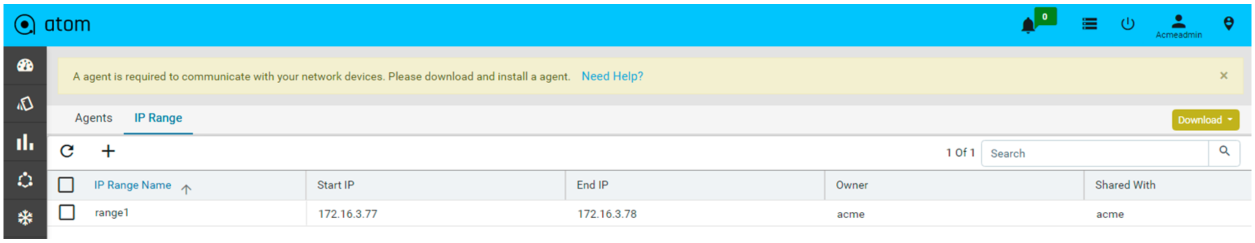
Description: Description

Start IP: 172.16.3.1

End IP: 172.16.3.255

Owner: acme

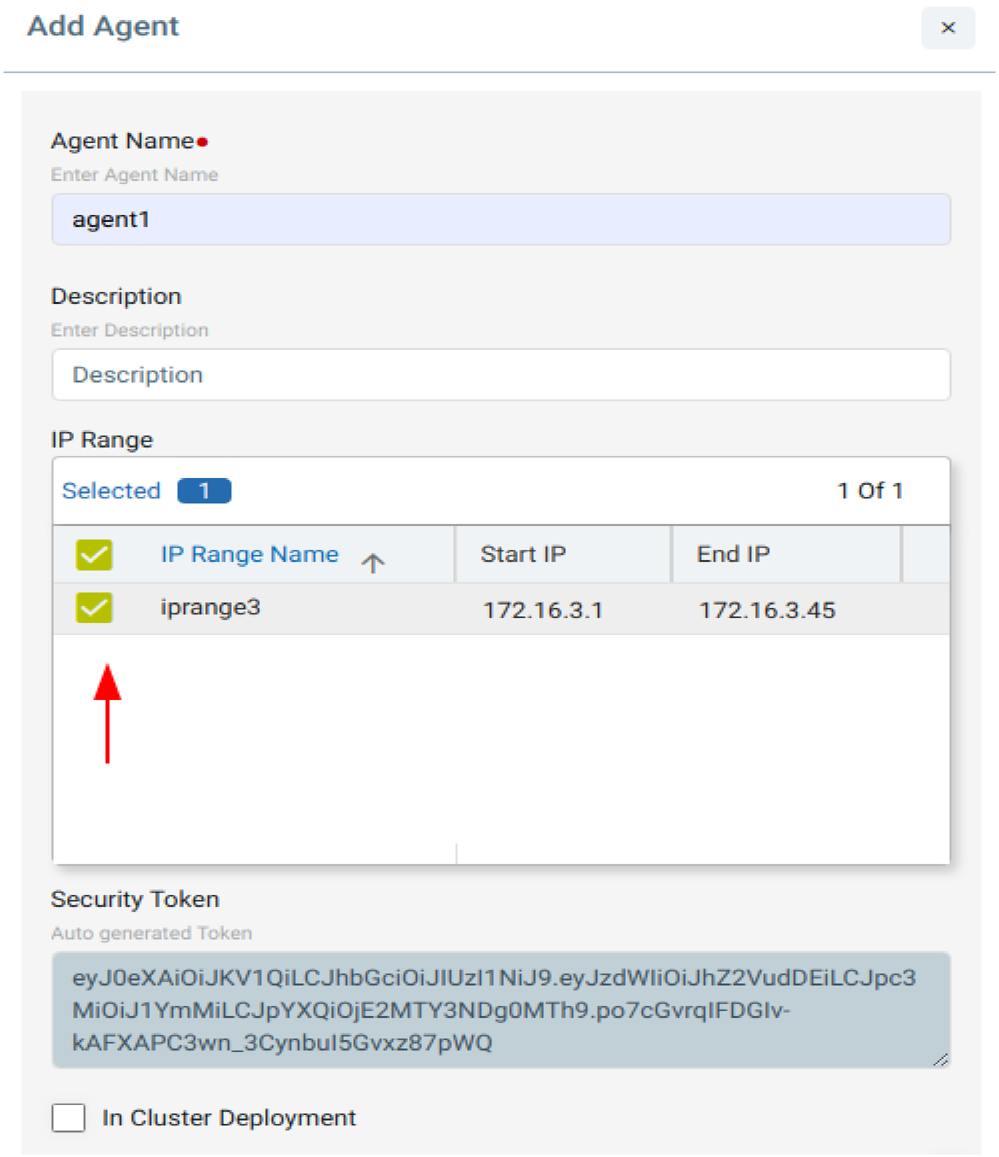
Shared with: acme



A agent is required to communicate with your network devices. Please download and install a agent. Need Help?

□	IP Range Name	Start IP	End IP	Owner	Shared With
□	range1	172.16.3.77	172.16.3.78	acme	acme

5. Navigate to the **Agents** tab and add a remote agent **<agent_name>**.
   a) Select some device ip ranges (mandatory) and some description (optional).
   b) Leave the checkbox **In Cluster Deployment** unchecked. (If checked, the agent will not be treated as remote and will get installed in the cluster itself).



Add Agent

Agent Name●

Enter Agent Name

agent1

Description

Enter Description

Description

IP Range

Selected 1 | 1 Of 1

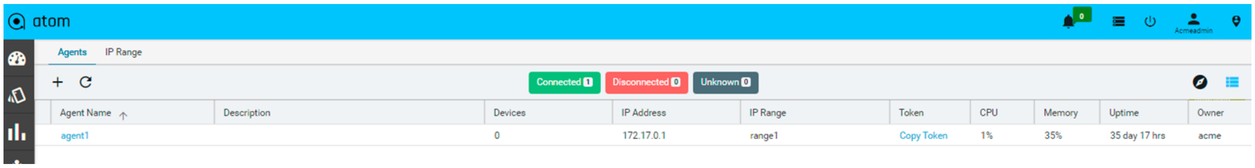
☑	IP Range Name	Start IP	End IP
☑	iprange3	172.16.3.1	172.16.3.45

Security Token

Auto generated Token

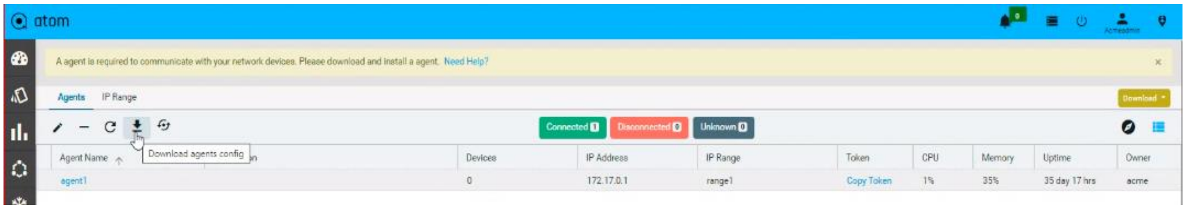
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJhZ2VudDEiLCJpc3MiOiJ1YmMiLCJpYXQiOjE2MTY3NDg0MTh9.po7cGvrqIFDGIv-kAFXAPC3wn_3CynbuI5Gvxz87pWQ

□ In Cluster Deployment



Agent Name	Description	Devices	IP Address	IP Range	Token	CPU	Memory	Uptime	Owner
agent1		0	172.17.0.1	range1	Copy Token	1%	35%	35 day 17 hrs	acme

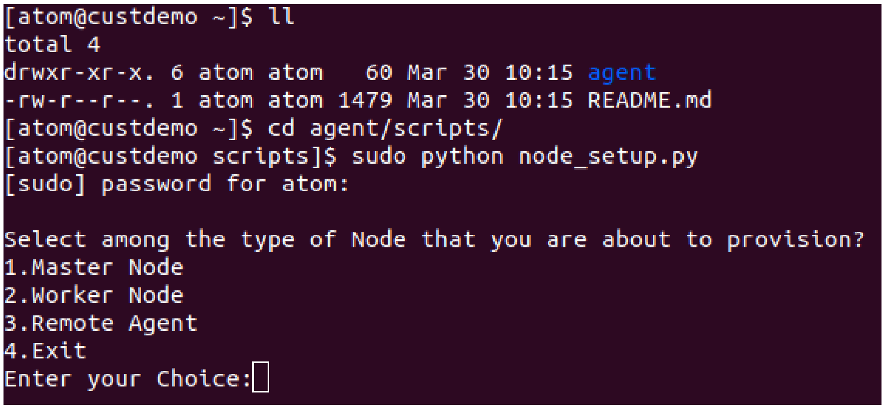
6. Select a particular agent and download the agent configuration file from the toolbar.



A agent is required to communicate with your network devices. Please download and install a agent. Need Help?

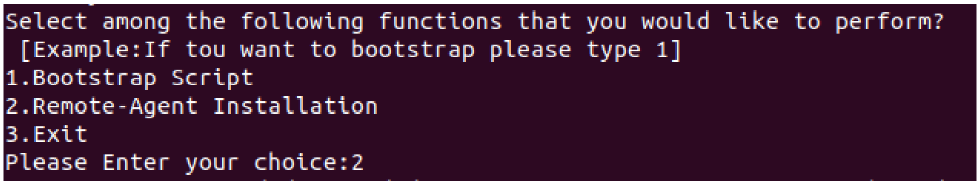
Agent Name	Devices	IP Address	IP Range	Token	CPU	Memory	Uptime	Owner
agent1	0	172.17.0.1	range1	Copy Token	1%	35%	35 day 17 hrs	acme

7. Once again login to the remote agent VM and execute the node_setup.py file located under /agent/scripts folder using sudo privileges as shown below:



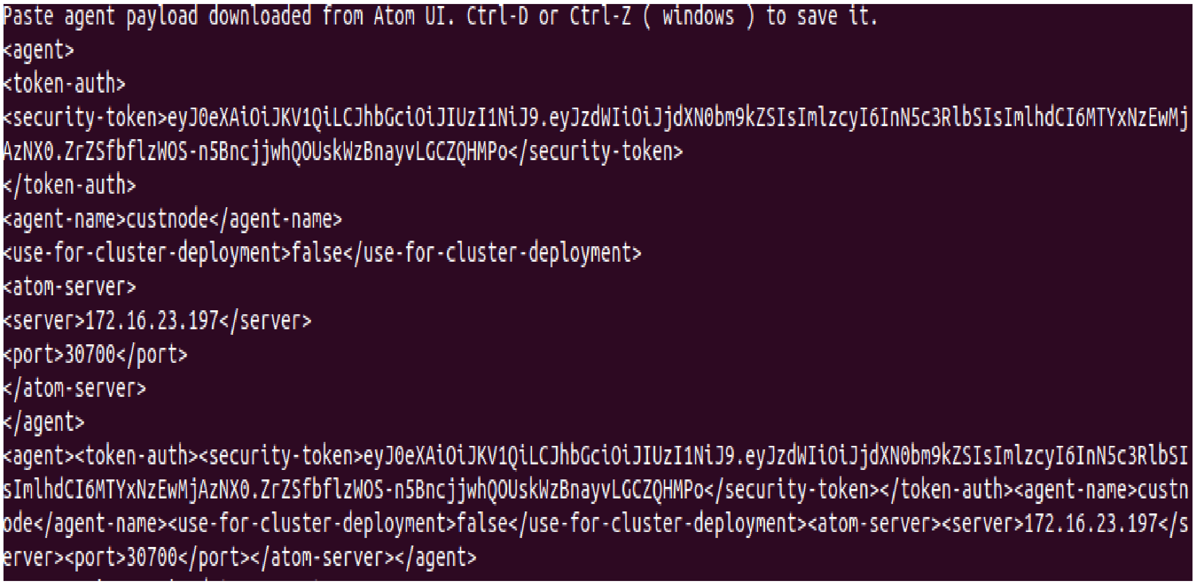
```
[atom@custdemo ~]$ ll
total 4
drwxr-xr-x. 6 atom atom   60 Mar 30 10:15 agent
-rw-r--r--. 1 atom atom 1479 Mar 30 10:15 README.md
[atom@custdemo ~]$ cd agent/scripts/
[atom@custdemo scripts]$ sudo python node_setup.py
[sudo] password for atom:

Select among the type of Node that you are about to provision?
1.Master Node
2.Worker Node
3.Remote Agent
4.Exit
Enter your Choice:
```

- Enter 3 when prompted for choice to provision the remote agent.

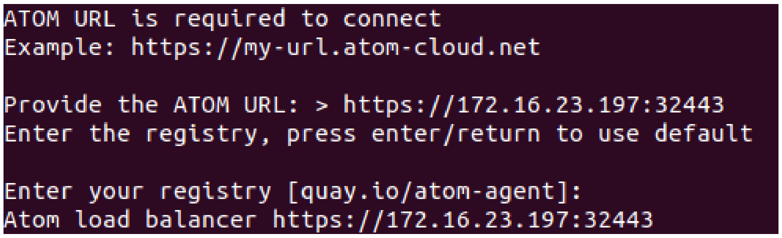


```
Select among the following functions that you would like to perform?
 [Example:If tou want to bootstrap please type 1]
1.Bootstrap Script
2.Remote-Agent Installation
3.Exit
Please Enter your choice:2
```

- Proceed with the remote agent installation.
- Copy the content from the downloaded agent config.xml file and paste it when prompted to do so and enter the break sequence and proceed to enter the Atom URL where this agent needs to be onboarded. Refer screenshot below:

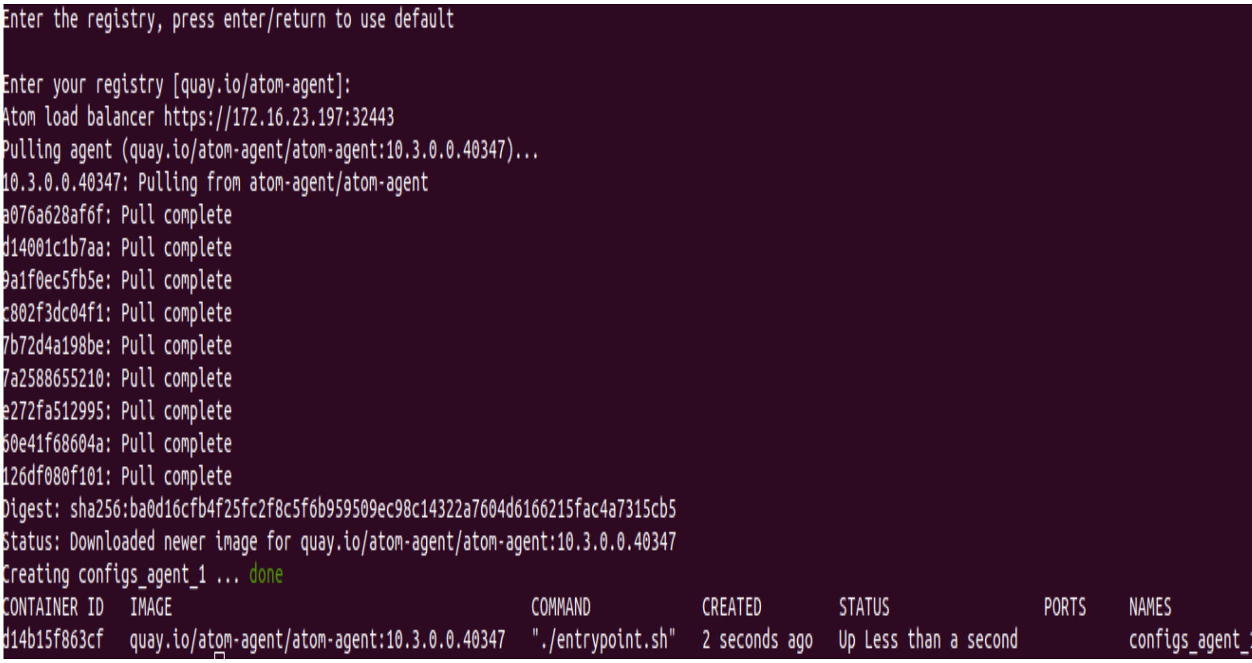


```
Paste agent payload downloaded from Atom UI. Ctrl-D or Ctrl-Z ( windows ) to save it.
<agent>
<token-auth>
<security-token>eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJjdXN0bm9kZSIsImlzcyI6InN5c3RlbSIsImlhdCI6MTYxNzEwMj
AzNX0.ZrZSfbflzWOS-n5BncjjwhQOUskWzBnayvLGCZQHMPo</security-token>
</token-auth>
<agent-name>custnode</agent-name>
<use-for-cluster-deployment>false</use-for-cluster-deployment>
<atom-server>
<server>172.16.23.197</server>
<port>30700</port>
</atom-server>
</agent>
<agent><token-auth><security-token>eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJjdXN0bm9kZSIsImlzcyI6InN5c3RlbSI
sImlhdCI6MTYxNzEwMjAzNX0.ZrZSfbflzWOS-n5BncjjwhQOUskWzBnayvLGCZQHMPo</security-token></token-auth><agent-name>custn
ode</agent-name><use-for-cluster-deployment>false</use-for-cluster-deployment><atom-server><server>172.16.23.197</s
erver><port>30700</port></atom-server></agent>
```



```
ATOM URL is required to connect
Example: https://my-url.atom-cloud.net

Provide the ATOM URL: > https://172.16.23.197:32443
Enter the registry, press enter/return to use default

Enter your registry [quay.io/atom-agent]:
Atom load balancer https://172.16.23.197:32443
```

- If a private local repo is used for agent image, enter the registry details, else leave it to the default to pull image from the repo maintained by Atom. Ensure you have connectivity to the repo to pull image and bring up the container.

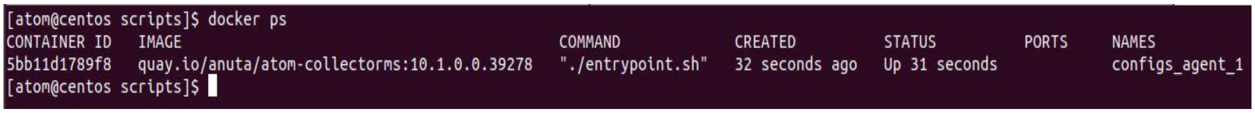


```
Enter the registry, press enter/return to use default

Enter your registry [quay.io/atom-agent]:
Atom load balancer https://172.16.23.197:32443
Pulling agent (quay.io/atom-agent/atom-agent:10.3.0.0.40347)...
10.3.0.0.40347: Pulling from atom-agent/atom-agent
a076a628af6f: Pull complete
d14001c1b7aa: Pull complete
9a1f0ec5fb5e: Pull complete
c802f3dc04f1: Pull complete
7b72d4a198be: Pull complete
7a2588655210: Pull complete
e272fa512995: Pull complete
60e41f68604a: Pull complete
126df080f101: Pull complete
Digest: sha256:ba0d16cfb4f25fc2f8c5f6b959509ec98c14322a7604d6166215fac4a7315cb5
Status: Downloaded newer image for quay.io/atom-agent/atom-agent:10.3.0.0.40347
Creating configs_agent_1 ... done
CONTAINER ID   IMAGE                                       COMMAND            CREATED         STATUS                  PORTS     NAMES
d14b15f863cf   quay.io/atom-agent/atom-agent:10.3.0.0.40347   "./entrypoint.sh"   2 seconds ago   Up Less than a second             configs_agent_
```

Atom agent installation would be complete and the status of the agent would show online on Atom. Please proceed with a verification check on the Atom UI as per the next section.

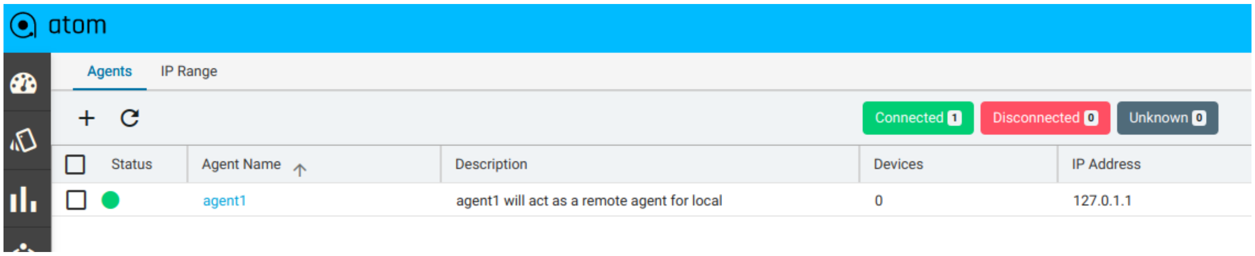
Agent Connection Verification

To verify the agent container status on the virtual machine where it was deployed, use ***docker ps*** command. Below is the sample output. Make sure the status is UP.



```
[atom@centos scripts]$ docker ps
CONTAINER ID   IMAGE                                      COMMAND             CREATED          STATUS          PORTS     NAMES
5bb11d1789f8   quay.io/anuta/atom-collectorms:10.1.0.0.39278   "./entrypoint.sh"   32 seconds ago   Up 31 seconds             configs_agent_1
[atom@centos scripts]$ 
```

Once the agent container is up on the agent VM instance, the status of the agent created on ATOM comes online by performing health checks. We can verify the status of the Agent on ATOM on **Agents** Page. The status should turn into green.



□	Status	Agent Name	Description	Devices	IP Address
□	●	agent1	agent1 will act as a remote agent for local	0	127.0.1.1

Some Scenarios in Remote Agent

1. Edit a particular IP Range

Go to **IP Range** tab and edit an Ip range.

Ex.
Previous range ->

Range name : iprange3

Ranges : 172.16.3.1 - 172.16.3.255

New Range ->

Range name : iprange3

Range : 172.16.3.1 -> 172.16.3.50

Now the remote agent which has iprange3 will serve only the devices specified in that updated range.

2. Edit a remote agent and add/delete other ranges

Go to the **Agents** tab and edit a particular agent.

Ex.
Previous ranges attached to the remote agent -> iprange1,iprange3

New ranges attached to the remote agent -> iprange1 (removed iprange3)

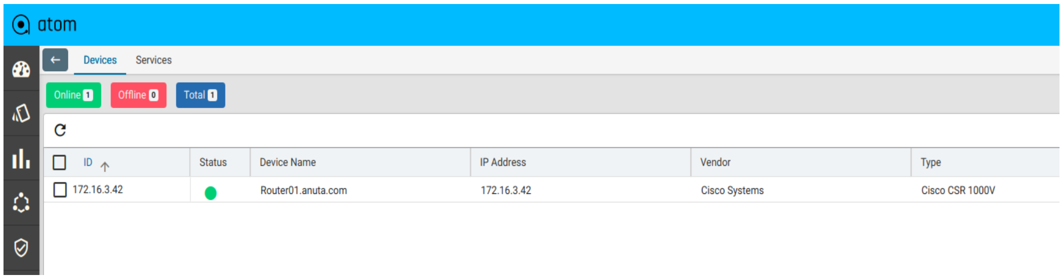
Now the remote agent will serve only the devices specified in the range iprange1.

3. ‘Devices’ and ‘Services’ attached to the Agent.

By clicking on the agent name, it will redirect to another page which has

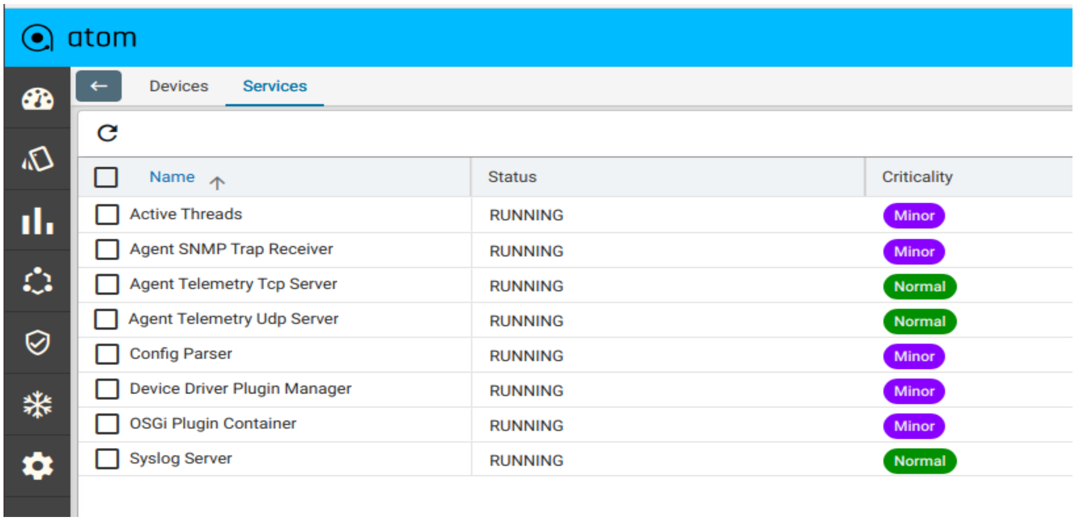
‘Devices’ and **‘Services’** tabs.

a) Devices tab will list all the devices attached to the agent.



☐	ID	Status	Device Name	IP Address	Vendor	Type
☐	172.16.3.42	●	Router01.anuta.com	172.16.3.42	Cisco Systems	Cisco CSR 1000V

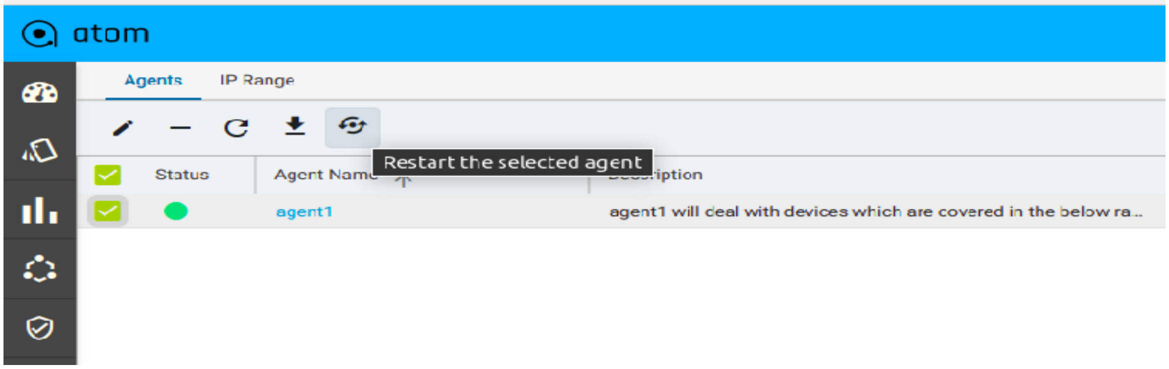
b) Services tab will list all the services attached to the agent.



☐	Name	Status	Criticality
☐	Active Threads	RUNNING	Minor
☐	Agent SNMP Trap Receiver	RUNNING	Minor
☐	Agent Telemetry Tcp Server	RUNNING	Normal
☐	Agent Telemetry Udp Server	RUNNING	Normal
☐	Config Parser	RUNNING	Minor
☐	Device Driver Plugin Manager	RUNNING	Minor
☐	OSGi Plugin Container	RUNNING	Minor
☐	Syslog Server	RUNNING	Normal

4. Restart Agent

After selecting a particular agent, it can be restarted from the above toolbar.



☑	Status	Agent Name	Description
☑	●	agent1	agent1 will deal with devices which are covered in the below ra..

Some important points

1. If we add a remote agent for a tenant, it will be visible to all the tenants/subtenants

which are mentioned in the shared-with field of the agent.

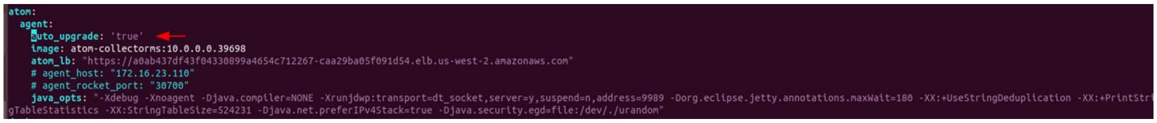
2. A tenant can add multiple remote agents for scale needs. Any remote agent can be associated with only one tenant at a time.
3. Overlapping of ip ranges is not allowed.
4. A device can be served by only one remote agent for a particular tenant.

ATOM upgrade scenario

Once the ATOM system is upgraded, the remote agent will automatically upgrade after 2 minutes. To verify this step :

1. Login to the remote agent vm instance.
   ssh atom@172.16.X.Y
2. Go to this path :
   cd /opt/atom/agent/configs/

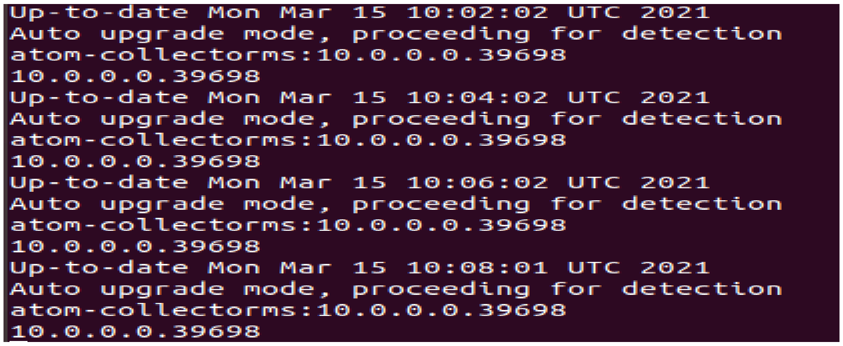
3. See the **config.yaml** file. If the auto_upgrade flag is **true** (by default it's true), it will automatically upgrade itself and the **image** version will change.
   As it’s by default in the auto upgrade mode, it will check after every 2 minutes whether there is a change in the ATOM version.



```
atom:
  agent:
    auto_upgrade: 'true'
    image: atom-collectorms:10.0.0.0.39698
    atom_lb: "https://a0ab437df43f04330899a4654c712267-caa29ba05f091d54.elb.us-west-2.amazonaws.com"
    # agent_host: "172.16.23.110"
    # agent_rocket_port: "30700"
    java_opts: "-Xdebug -Xnoagent -Djava.compiler=NONE -Xrunjdwp:transport=dt_socket,server=y,suspend=n,address=9989 -Dorg.eclipse.jetty.annotations.maxWait=180 -XX:+UseStringDeduplication -XX:+PrintStri
gTableStatistics -XX:StringTableSize=524231 -Djava.net.preferIPv4Stack=true -Djava.security.egd=file:/dev/./urandom"
```

To see the upgrade logs -

1. Go to this path :
   cd /tmp
2. vi install.out



```
Up-to-date Mon Mar 15 10:02:02 UTC 2021
Auto upgrade mode, proceeding for detection
atom-collectorms:10.0.0.0.39698
10.0.0.0.39698
Up-to-date Mon Mar 15 10:04:02 UTC 2021
Auto upgrade mode, proceeding for detection
atom-collectorms:10.0.0.0.39698
10.0.0.0.39698
Up-to-date Mon Mar 15 10:06:02 UTC 2021
Auto upgrade mode, proceeding for detection
atom-collectorms:10.0.0.0.39698
10.0.0.0.39698
Up-to-date Mon Mar 15 10:08:01 UTC 2021
Auto upgrade mode, proceeding for detection
atom-collectorms:10.0.0.0.39698
10.0.0.0.39698
```

Some Common Exception scenarios

1. Agent and Atom Version mismatch

As remote agents will be deployed on a different machine, it is mandatory that the **atom**

version and the **agent version** should match.

- For Agent version : **Agents -> Grid View -> Build Version**
- For Atom version : **Administration -> About**

If it is not the case, the remote agent will not come online.

2. Authentication failed due to invalid security token

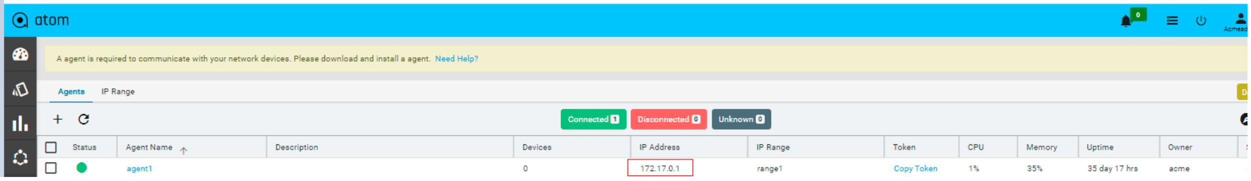
If the security token of the agent is not copied correctly or there is some mismatch in the token (in the config. File downloaded from UI and the agent.xml file deployed in the agent vm), then this exception will be seen.

Troubleshooting

1. Debug/error logs in Remote Agent

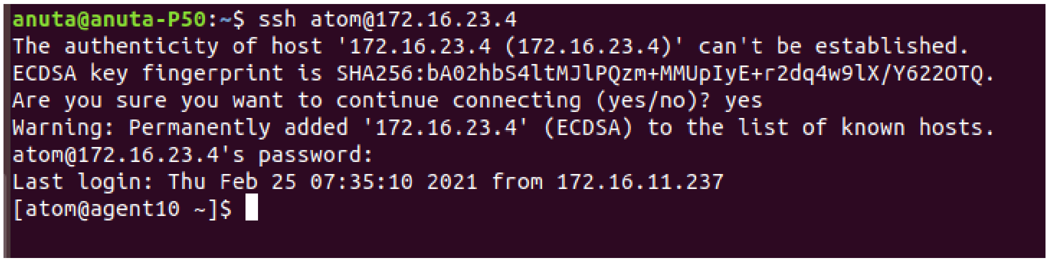
Login to the IP address mentioned in the grid for a particular agent.

Refer below example.



A agent is required to communicate with your network devices. Please download and install a agent. Need Help?

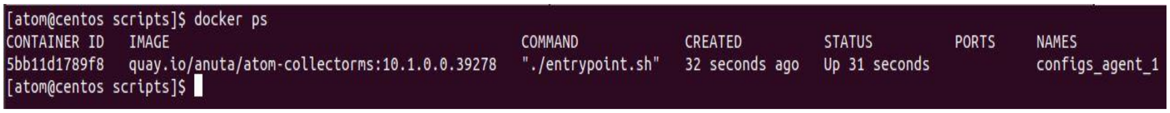
	Status	Agent Name	Description	Devices	IP Address	IP Range	Token	CPU	Memory	Uptime	Owner
□	●	agent1		0	172.17.0.1	range1	Copy Token	1%	35%	35 day 17 hrs	acme



```
anuta@anuta-P50:~$ ssh atom@172.16.23.4
The authenticity of host '172.16.23.4 (172.16.23.4)' can't be established.
ECDSA key fingerprint is SHA256:bA02hbS4ltMJlPQzm+MMUpIyE+r2dq4w9lX/Y622OTQ.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '172.16.23.4' (ECDSA) to the list of known hosts.
atom@172.16.23.4's password:
Last login: Thu Feb 25 07:35:10 2021 from 172.16.11.237
[atom@agent10 ~]$ 
```

After logging in :

1. Run command : **docker ps**



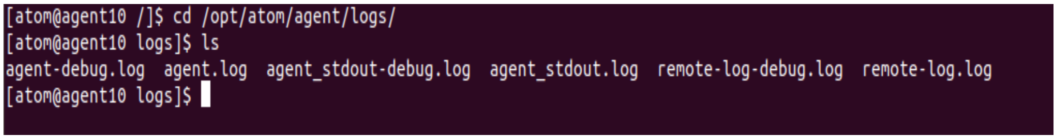
```
[atom@centos scripts]$ docker ps
CONTAINER ID   IMAGE                                      COMMAND            CREATED          STATUS          PORTS     NAMES
5bb11d1789f8   quay.io/anuta/atom-collectorms:10.1.0.0.39278   "./entrypoint.sh"   32 seconds ago   Up 31 seconds             configs_agent_1
[atom@centos scripts]$ 
```

Check whether its up or not and no exception is there. If its UP and the status in UI is still not connected, check exception : Run command : docker logs <container-id>

Eg. docker logs 5bb11d1789f8

2. If the status of the agent is up but there is some unwanted exception coming from agents, go to the **/opt/atom/agent/logs** folder**.**

   All the logs are visible in this directory.



```
[atom@agent10 /]$ cd /opt/atom/agent/logs/
[atom@agent10 logs]$ ls
agent-debug.log  agent.log  agent_stdout-debug.log  agent_stdout.log  remote-log-debug.log  remote-log.log
[atom@agent10 logs]$ 
```