Install AIQ as a Linux Service

The recommended way to start AppvanceIQ in Linux distributions like Amazon Linux or Ubuntu is to use the systemd service system.

The `etc/rc.local` method should NOT be used as it will use the default 1024 limit for open file handles which is too low.

`systemctl` is a command-line utility used to interact with the systemd system and service manager. It allows you to manage and control system services and units.

Here are some of the key functions you can perform with `systemctl`:

- Start a service: `systemctl start [service_name]`
- Stop a service: `systemctl stop [service_name]`
- Restart a service: `systemctl restart [service_name]`
- Check the status of a service: `systemctl status [service_name]`
- Enable a service to start at boot: `systemctl enable [service_name]`
- Disable a service from starting at boot: `systemctl disable [service_name]`
- Reload a service's configuration: `systemctl reload [service_name]`

Steps:

1. Download and extract the aiq distribution zip file to `aiq_distribution` into the `/opt/aiq/aiq_distribution` folder.
2. Make sure the `aiq_distribution` folder has the execution flag turned on using the command : `chmod -R +x aiq_distribution`
3. Make sure that you download a recent GraalVM JDK 11 version with a command like:
   ```
   cd /opt
   wget https://github.com/graalvm/graalvm-ce-builds/releases/download/vm-22.3.3/graalvm-ce-java11-linux-amd64-22.3.3.tar.gz
   ```

   You can unpack the above file using:
   `tar -xzf graalvm-ce-java11-linux-amd64-22.3.3.tar.gz`
4. Enable the graalvm javascript engine executing the command:
   ```
   cd /opt/graalvm-ce-java1-22.3.3/bin
   ./gu install js
   ```
5. As the root user, create a text file named `appvance.service` inside the folder `/etc/systemd/system`.
   Note that the 'User' value of ec2-user applies to Amazon Linux, this should be changed to ubuntu for Ubuntu OS. Validate that `PATH` and `JAVA_HOME` are set to the right graalvm

path.
Example file: `/etc/systemd/system/appvance.service`

```
[Unit]
Description=Start Appvance IQ services
After=syslog.target
[Service]
Environment=PATH=/opt/graalvm-ce-java11-22.3.3/bin:/sbin:/bin:/usr/sbin:/usr/bin
Environment=JAVA_HOME=/opt/graalvm-ce-java11-22.3.3
User=ec2-user
Type=simple
LimitNOFILE=10000000
LimitNPROC=20000
ExecStart=/bin/bash /opt/aiq/aiq_distribution/TestNode/startup.sh
WorkingDirectory=/opt/aiq/aiq_distribution/TestNode
TimeoutStartSec=0
[Install]
WantedBy=multi-user.target
```

6. Execute the following commands as root user to have the `appvance.service` file enabled to start at boot:
   `systemctl daemon-reload`
   `systemclt enable appvance`
7. Once above steps have been completed, AppvanceIQ will automatically start when the instances is rebooted.

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If you have any feedback on this topic, please contact us at documentation@appvance.ai

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