BitPath-DevKit

IoT Jobs Testing

RADIOSTUDIO

1 Table of Contents

2 Revision History

Version No	Date	Author	Change Log
1.0	29/04/2024	RadioStudio	

3 Remote Jobs using AWS IoT Core FleetHub

3.1 Create a job that installs a package/downloads something into the device

3.1.1 What job are you running?

- First, you need to define what you need to install/download
- For this, we have already uploaded a file **install.py** on the s3 bucket.
- Contents of this file are below (sample code; you don't need to edit anything here)

```
import os

clone1 = 'cd /opt/cs-deploy/ && git clone https://github.com/stevemar/sample-python-app.git'

executer= 'cd /opt/cs-deploy/sample-python-app/ && pip install -r requirements.txt'

os.system(clone1)

os.system(executer)

print("A Sample file. Downloaded to Device and Executed !")
```

- This downloads and installs a sample Python app content.
- Let's run this code on the new device you booted.

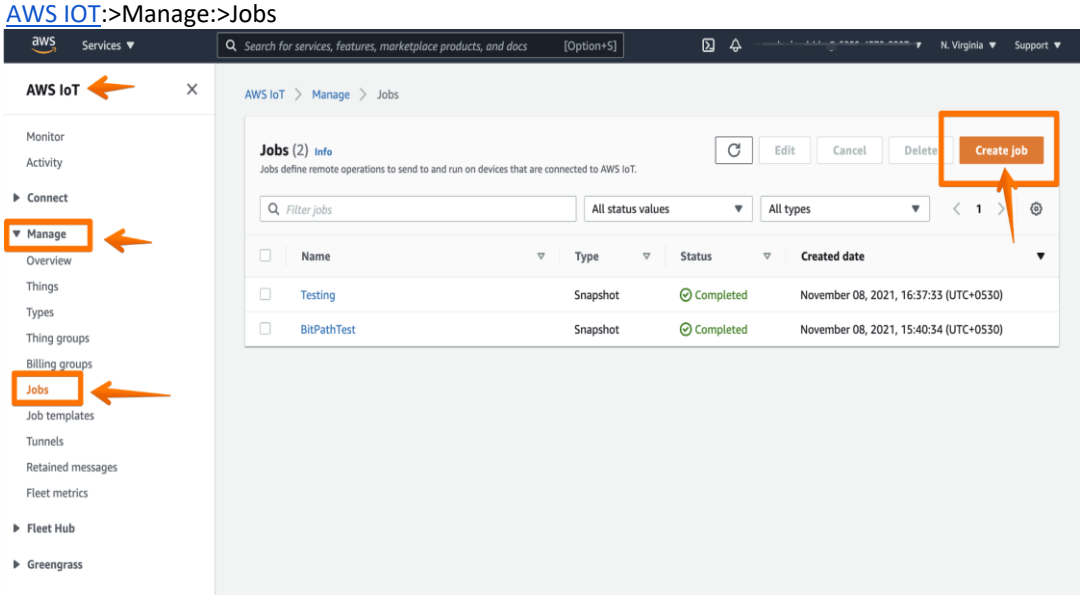
3.1.2 How to run this job using IOT core

- The jobs are always in JSON format
- We have already created a JSON file which will run the above job
- Install-01.json is on the same S3 bucket. The content of the documents is below (you don't need to edit anything here)

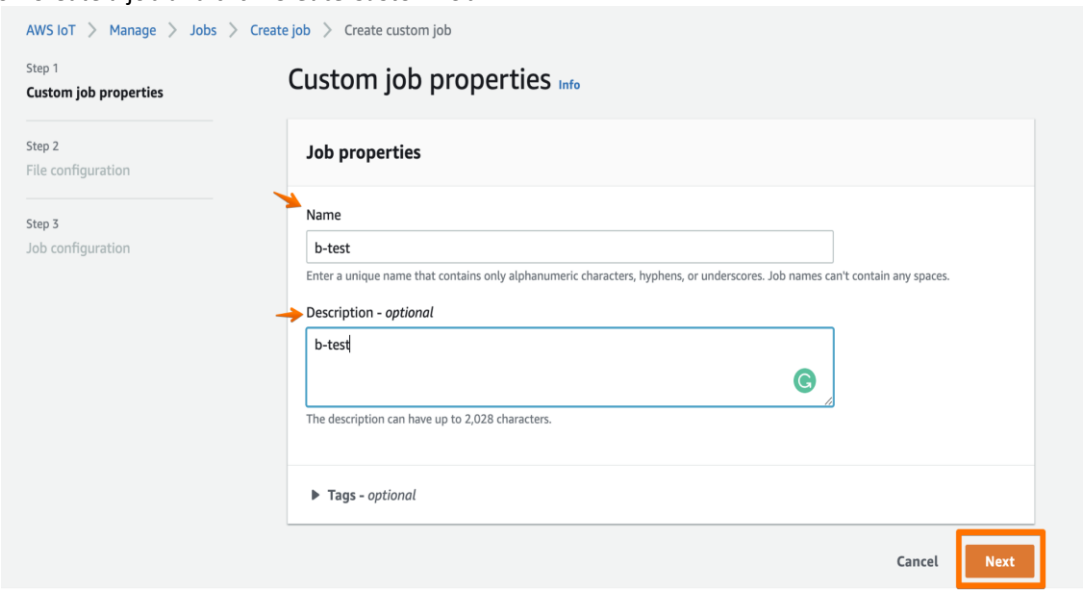
```
{

"operation" : "install",

"version" : "1.0",

"packageName" : "install.py",

"autoStart" : "true",

"workingDirectory" : "/opt/iotcore-jobs",

"files" : {

"fileName" : "install.py",

"url" : "${aws:iot:s3-presigned-url:https://s3.us-east-1.amazonaws.com/bitpath-jobs-demo/install.py}"

}

}
```

Now, let's run this using the IOT core.

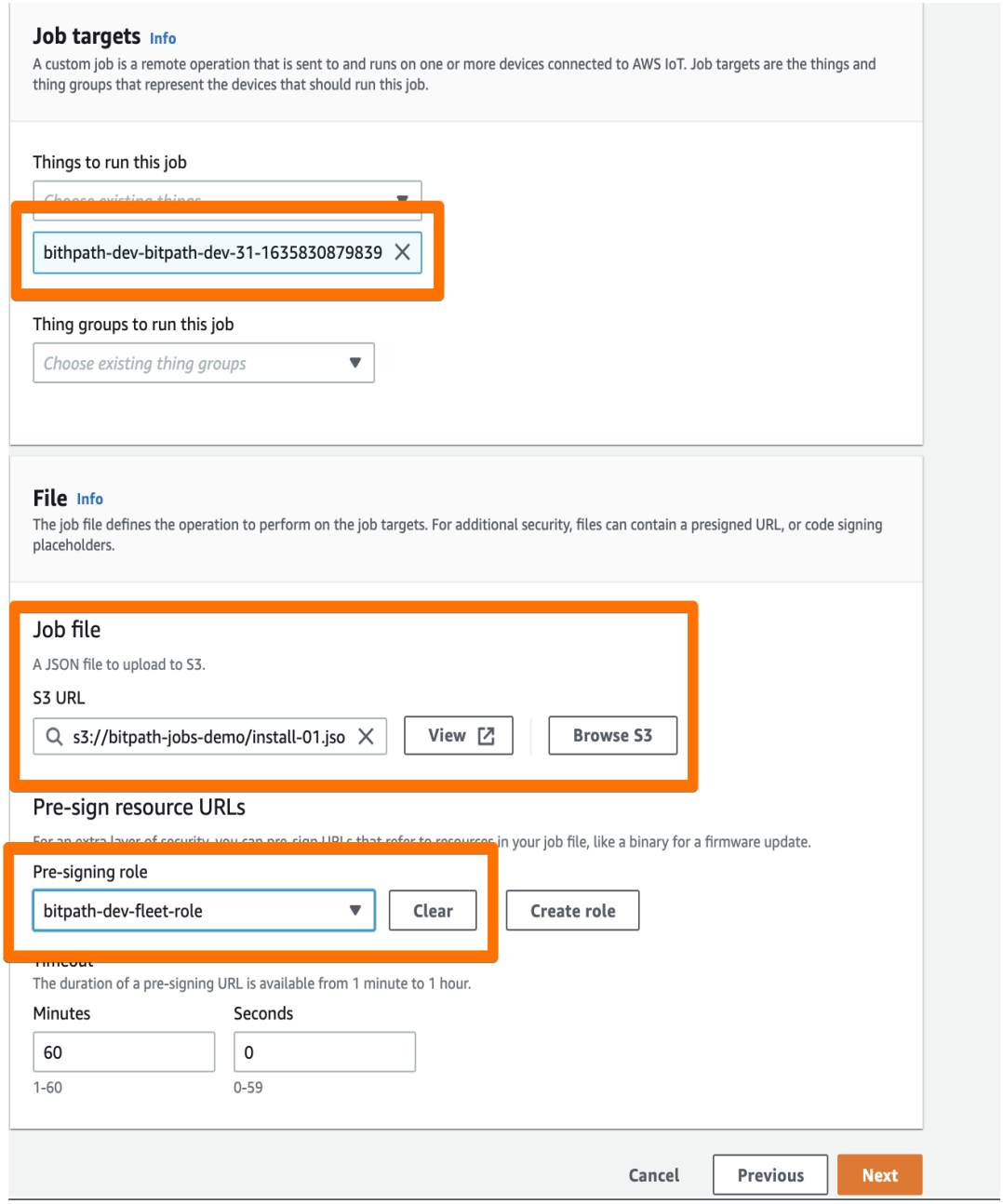
Go to AWS IOT:>Manage:>Jobs



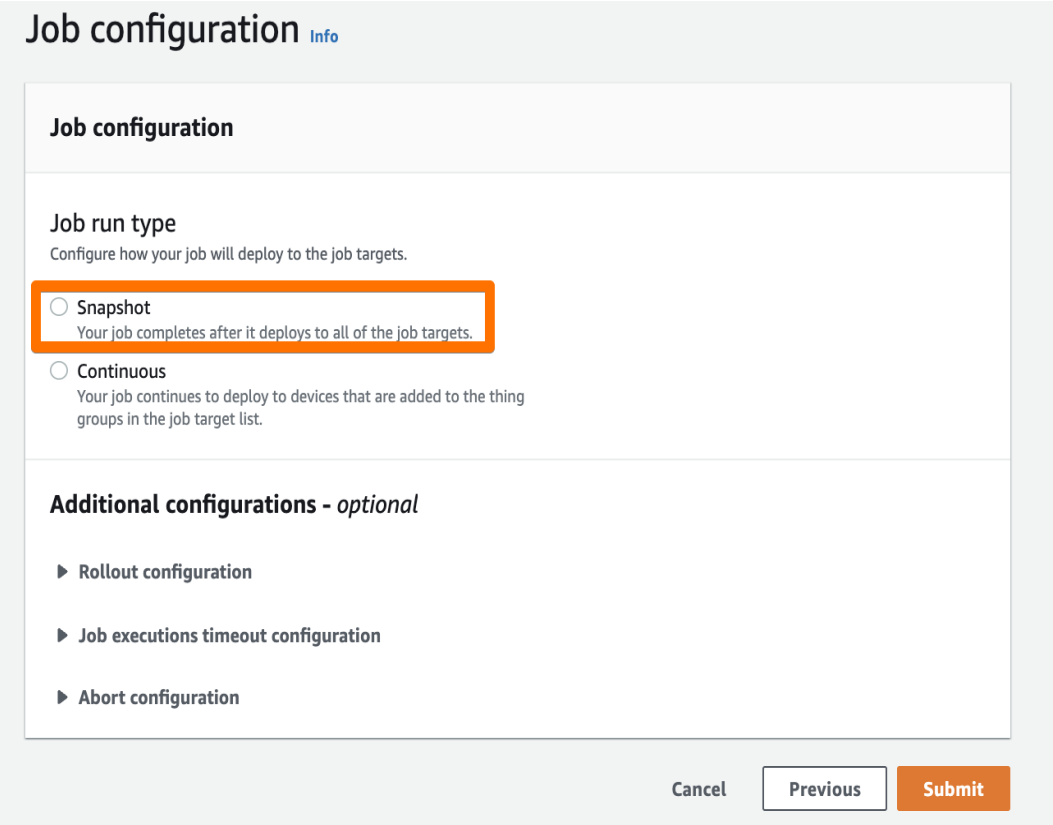
Click on Create a job and click ***Create Custom Job***



Now, under ***Things to run this job,*** choose your device (you can spot the device based on the hostname you have chosen)
Under the ***job file***, ***s3 url:*** click the browse s3 button, choose bitpath-jobs-demo bucket, and ***install-01.json*** as the JSON file.



Click on next. Under **job run type**, choose the ***snapshot***



- Click submit, and your jobs should start running on the device.
- After 2-3 minutes, log in to the device to verify if it downloaded this Python program. You can verify that there will be a sample-python-app folder under **/opt/cs-deploy**.
- This means your job was run **successfully** by IOT core.

4 Rollback of the job (Delete the download item / uninstall the package)

- The steps are the same as for installing; we just ran another job to uninstall this.
- Please follow the same steps from ***v. (Go to AWS IOT:>Manage:>Jobs)*** on how to run this job **using IOT core**
- The only change is to select the file **uninstall-01.json** file this time.
- This should delete the **sample-python-app** under **/opt/cs-deploy**.
- What jobs we run can be verified by looking at the file **uninstall-01.json** and **rollback.py** on the s3 bucket.

5 References