

NB-IoT Testset 2.0 Application Server Installation Guide

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Huawei Technologies



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1. General Introduction

1.1 Application Scope

Here takes Lierda Test set 2.0 as example; it describes the one-key installing test application server.

1.2 Precondition of installation

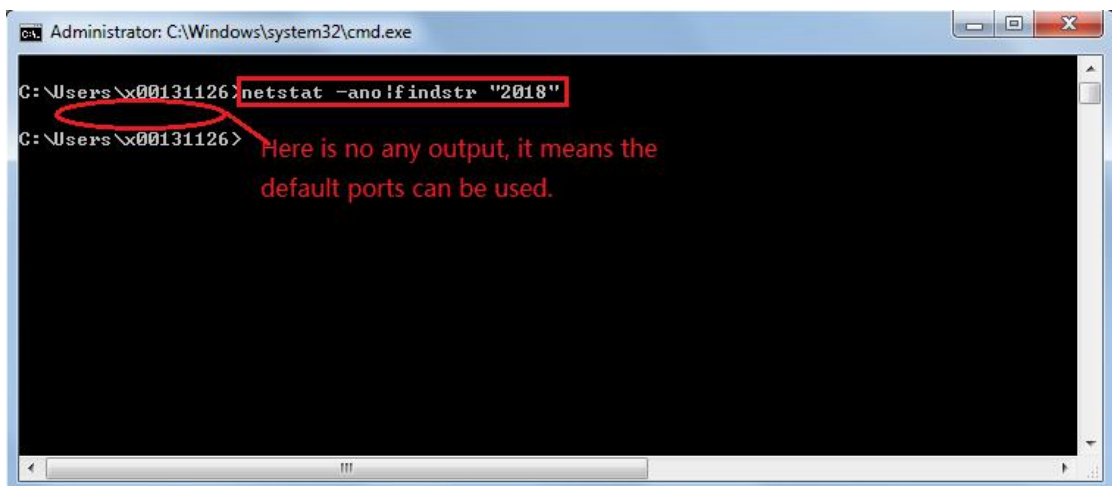
1. Operation system: Win7 or above with 64bit
2. There are disk C and D on the computer
3. The installation package of application server is ready.

1.3 Preparation before installation

1. Make sure your local computer can access IoT platform via **browser if application server connects IoT platform, please refer chapter 6 for more information.**

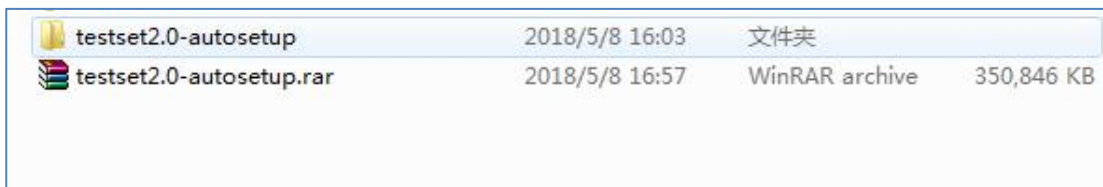
2. Make sure the test set can access the application server. **If there is problem, you should contact PS core technical engineer.**

3. Open command line using command 'cmd.exe', input **netstat -ano|findstr "2018"**, if there is no any output, or there is no number in the list **20181,20182,20186,20187**,it means the application server can be installed by default, otherwise the ports should be changed in the configuration file, you can refer chapter 5 to modify the configuration .



2. Installation Steps

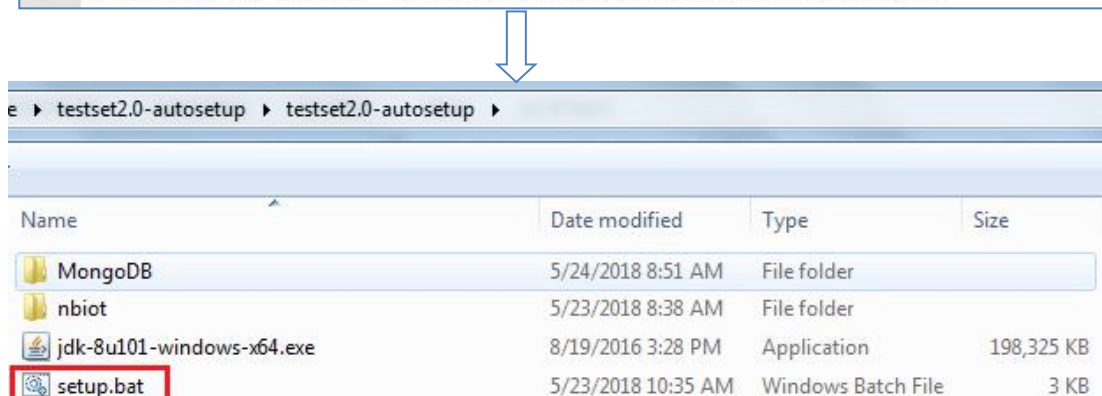
1. Extract test2.0-autosetup.rar to local computer (Take this as example, this guide is to extract it to local disk D, you can extract it to other directory).



2. Go to directory test2.0-autosetup, opening and editing the Setup.bat 80th line with Notepad or other text editing software, then right click file setup.bat, and run as administrator role, it will take 3 to 5 minutes to complete the installation:

```
80 cd /d D:/testset/nbiot
81 call java -jar utils.jar -address http://121.0.2.71:20186
82 call jar uf nbiot-v1.2.0.jar BOOT-INF/classes/static/static/js/main.js
83 call java.exe -jar nbiot.jar --spring.config.location=d:testset/nbiot/application.yml
```

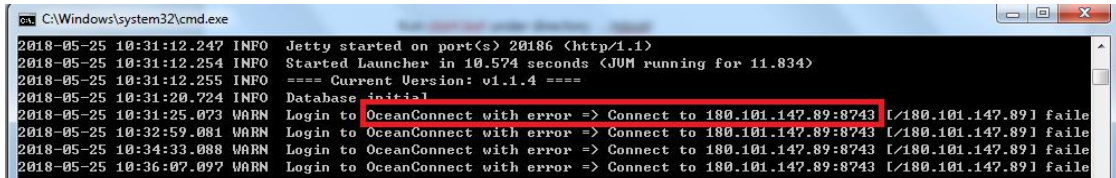
Here you need to modify the IP address for the local computer.



3. After the command line shows "====Current Version: v1.1.4 ====". It means the installation is completed. Meanwhile the application service starts after the installation.

4. Configuration of connecting IoT(If IoT platform is deployed)

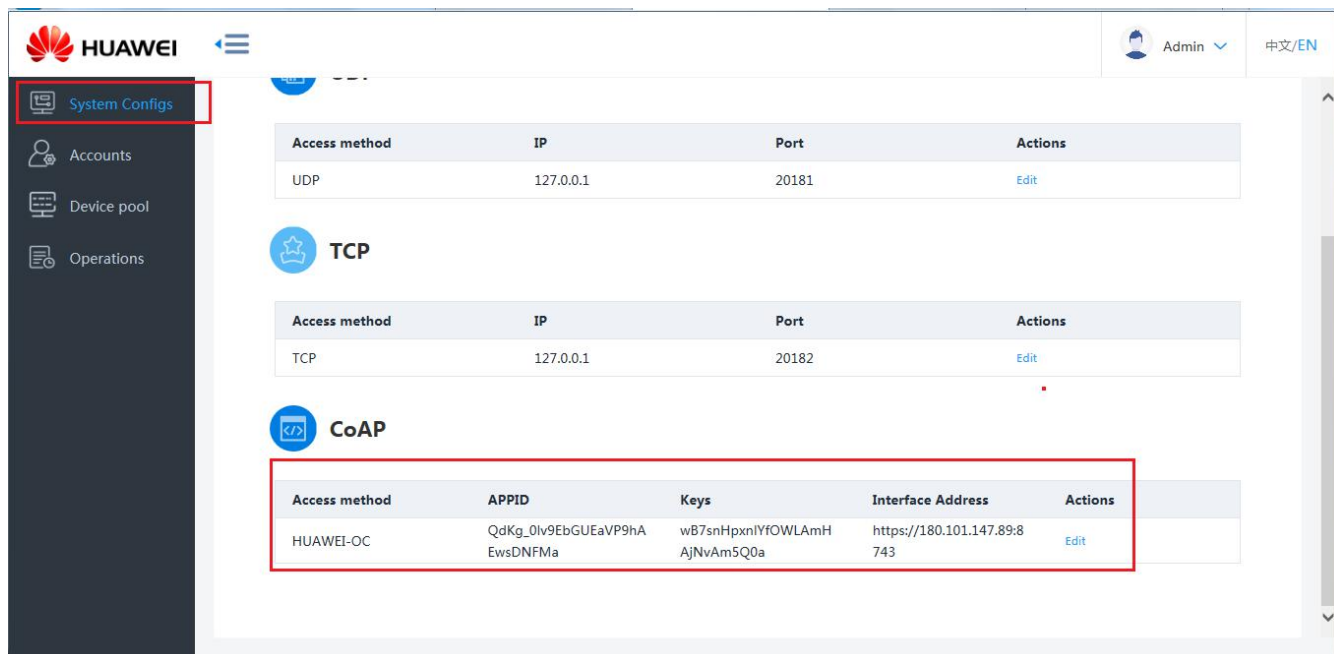
If the IoT platform is not deployed or the IoT setting is not correct, from the server window command line, we will see the error



```
C:\Windows\system32\cmd.exe
2018-05-25 10:31:12.247 INFO Jetty started on port(s) 20186 <http/1.1>
2018-05-25 10:31:12.254 INFO Started Launcher in 10.574 seconds <JVM running for 11.834>
2018-05-25 10:31:12.255 INFO === Current Version: v1.1.4 ===
2018-05-25 10:31:20.724 INFO Database initial
2018-05-25 10:31:25.873 WARN Login to OceanConnect with error -> Connect to 180.101.147.89:8743 [/180.101.147.89] failed
2018-05-25 10:32:59.081 WARN Login to OceanConnect with error -> Connect to 180.101.147.89:8743 [/180.101.147.89] failed
2018-05-25 10:34:33.088 WARN Login to OceanConnect with error -> Connect to 180.101.147.89:8743 [/180.101.147.89] failed
2018-05-25 10:36:07.097 WARN Login to OceanConnect with error -> Connect to 180.101.147.89:8743 [/180.101.147.89] failed
```

The following steps are to configure IoT platform.

4.1 Login using administrator, please refer the following picture:



4.2 Edit configuration to connect IoT platform

Click 'Edit' on the right of menu 'CoAP', one form is shown, fill out IoT

platform IP and port ([http:// IoT IP :port](http://IoT IP :port)), APPID and key, click 'Confirm' to save

the configuration. **Please restart the application server after saving.**

Edit



Access method: HUAWEI-OC

APPID

Keys

Interface Address

Cancel

Confirm

5. Configuration file description

Configuration file **application.yml** is located in directory **./nbiot**, using text editor (notepad or UltraEdit) to open it.

Note: Restarting application server is required after modifying configuration file, run **/nbiot/start.bat** to restart.

```

13 # 非集群模式...mongodb://user:pwd@host:port/database
14 # 集群模式时...mongodb://user:pwd@host1:port1,host2:port2/database
15 uri: mongodb://127.0.0.1:27017/huawei-nb Database connection URI, keep the default setting generally
16 mail: # 邮件服务配置
17 host: mail.lierda.com # SMTP发件服务器地址
18 username: nbadmin@lierda.com # 发件人邮箱
19 password: 7a7h6MjFv1 # 发件人邮箱密码
20
21 # 超级管理员账号配置
22 Admin-User-Account:
23 allowLoginIp: "*" # 管理员账号允许的登录IP: 设置成 * 表示不限制登录IP
24
25 # 邮件服务的额外配置
26 Email-extra:
27 emailSender: nbadmin@lierda.com # 发件人的邮箱地址
28
29 # 本地HTTP服务器配置: 提供给前端UI页面调用API
30 server:
31 port: 20186 The server port which is connected by browser, if this port is
32 # 临时文件存储目录配置—用来存储导出的Excel文件, 提供给页面导出下载
33 # 必须确保服务器对该目录有读写权限!
34 temp-file:
35 storagePath: C:\Users\lenovo\Desktop\nbiot-temp
36
37 # 本地HTTP服务器配置: 提供给华为OceanConnect平台消息回调推送
38 HttpServerForOceanConnect:
39 port: 20187 The serverport which connects IoT platform, if this port is
40 # 此端口提供给华为OceanConnect平台的数据回调推送使用, 由'enableHttps'项来配置HTTP或者HTTPS
41 enableLocalHttps: false # 是否开启HTTPS: true-开启HTTPS; false-关闭HTTPS
42 trustStoreFile: D:\testset\MongoDB\certificate\truststore.jks The flag to enable HTTPS, false means HTTP, true means
43 trustStoreFilePass: tcV5LKAwpeM3g8V4 HTTPS, certification is required.
44 keyStoreFile: D:\testset\MongoDB\certificate\keystore.jks
45 keyStoreFilePass: tcV5LKAwpeM3g8V4
46
47 # UDP服务器配置
48 UdpServer:
49 port: 20181 The serverport which listens UDP connection, if this port is
50 # UDP通信端口
51 # TCP服务器配置
52 TcpServer:
53 port: 20182 The serverport which listens TCP connection, if this port is
54 # TCP服务器监听端口
55 # 华为OceanConnect平台相关配置
56 OceanConnect:
57 callbackAddress: http://10.161.188.138:20186 # NB-IoT测调应用平台的callback地址, 格式: http(s)://host:port
58 # 此平台调用华为OceanConnect平台Https API的证书设置 (双向Https)
59 caCertFile: D:\testset\MongoDB\certificate\ca.jks # NB-IoT测调应用平台调用华为HTTPS API时所需要的根证书文件
60 caCertFilePass: huawei@123 # 此平台调用华为HTTPS API时所需要的根证书文件的访问密码
61 clientCertFile: D:\testset\MongoDB\certificate\outgoing.CertwithKey.pkcs12 # NB-IoT测调应用平台调用华为HTTPS API时所需要的客户端证书文件
62 clientCertFilePass: IoM@1234 # 此平台调用华为HTTPS API时所需要的客户端证书文件的访问密码
63

```

Application server port description

Default Port	Function
20181	UDP listening port
20182	TCP listening port
20186	Browser access port
20187	IoT platform listening port

6. 2 Scenarios of application server connection schema

Scenario	IoT Platform deployed	Description
1	Yes	Application server connects IoT platform.
2	No	Application server connects IoT PS core directly.