

## 1. 安装说明

双击 `org.gnome.uDDS_2.0.0-3+b1_arm64.deb` 进行安装，默认安装路径在 `/opt/apps` 下，示例如图 1 所示。

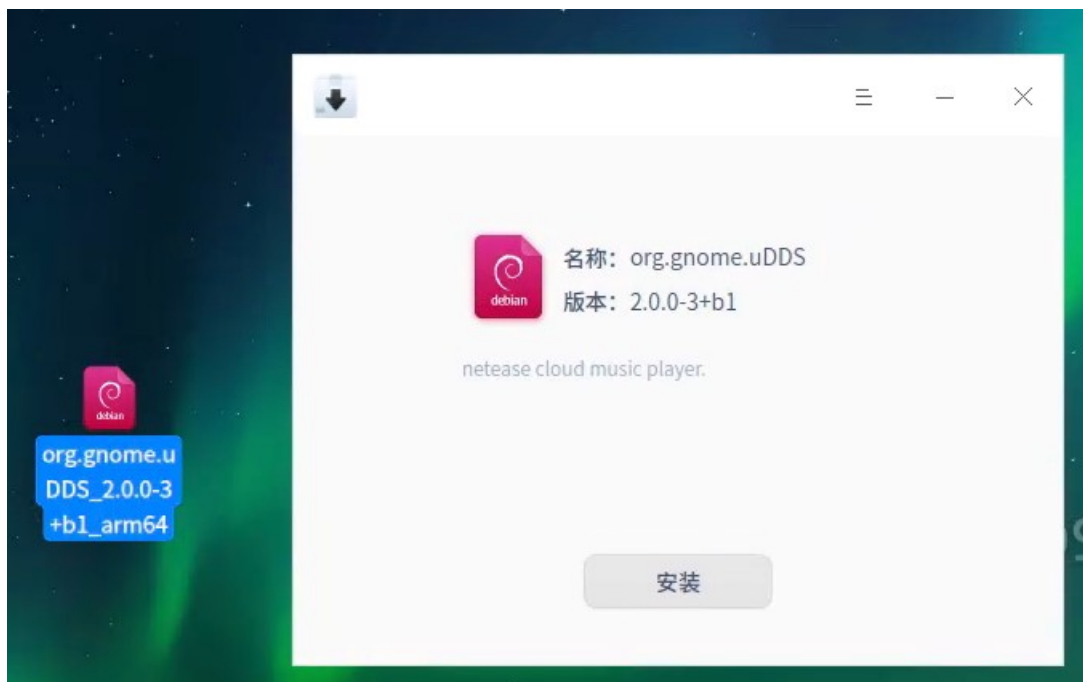


图 1 uDDS 安装示例

## 2. 配置说明

- 1) 打开终端，进入 `root` 用户权限，`cd` 进入 `/opt/apps/org.gnome.uDDS/files/lib` 目录，如图 2 所示：

```
uos@uos-PC: /opt/apps/org.gnome.uDDS/files/lib$ sudo -i
请输入密码
[sudo] uos 的密码：
验证成功
root@uos-PC: ~# cd /opt/apps/org.gnome.uDDS/files/lib
root@uos-PC: /opt/apps/org.gnome.uDDS/files/lib# ./Pub
```

图 2 进入终端

- 2) 在终端输入 `./Sub.sh`，如果程序能够正常运行并提示未找到 `lickey` 文件，说明安装成功，如图 3 所示：

```

uos@uos-PC: /opt/apps/org.gnome.uDDS/files/lib$ ./Sub.sh
/*****/
/*
/*      Copyright 2021 System Engineering Research Institute      */
/*
/*      2.3.0.20201015-NeoKylin4.0(32bit)-x86-gcc-4.4.5-debug      */
/*
/*      Update time 2021-02-01,10:46:59      */
/*
/*      Email: chentx@csit.net.cn      */
/*
/*****/
rett = 0 , rett2 = 0 , ret_dm = 0
Machine ID: ARM-5254-0064-7CCA-61A02B00
/opt/apps/org.gnome.uDDS/files/uDDS/ddsLic/lickey
license file open failed
DomainInit failed ,DomainId is 3, Ret = 600

```

图 3 测试安装环境

- 3) 打开 /opt/apps/org.gnome.uDDS/files/uDDS/ddslic 目录下有一个 MachineID.req 文件，打开文件申请软件许可,如图 4 所示

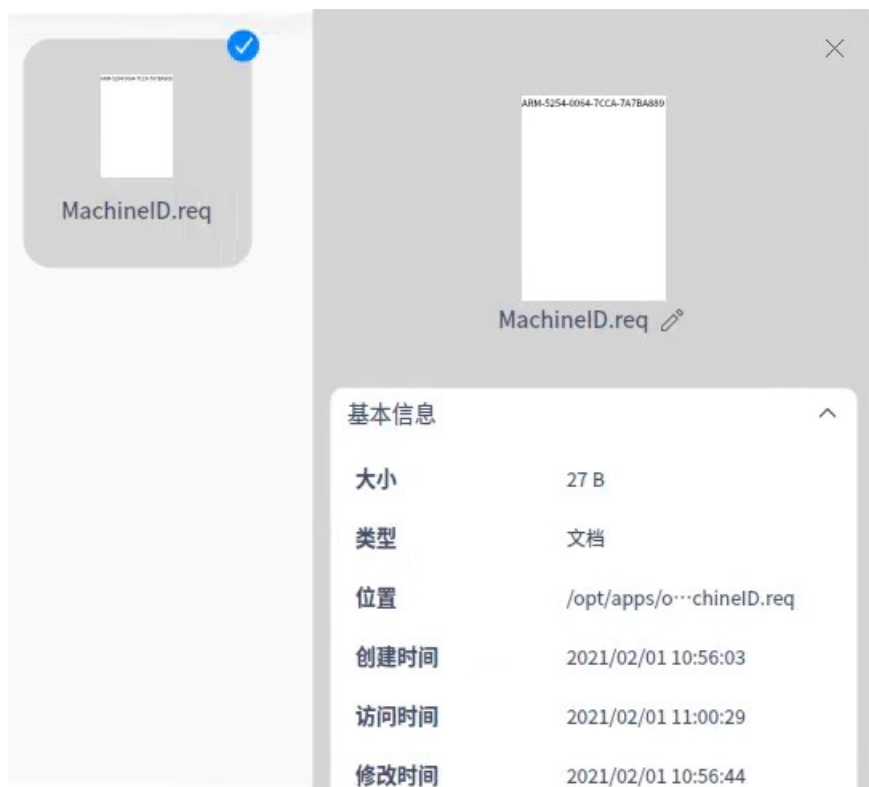


图 4 查看 MachineID.req

- 4) 将 lickey 文件放入/opt/apps/org.gnome.uDDS/files/uDDS/ddslic 目录下，再次运行 Sub.sh，可以成功运行,如图 5 所示:

```

uos@uos-PC: /opt/apps/org.gnome.uDDS/files/lib$ ./Sub.sh
/*****/
/*
/*      Copyright 2021 System Engineering Research Institute      */
/*
/*      2.3.0.20201015-NeoKylin4.0(32bit)-x86-gcc-4.4.5-debug      */
/*
/*
/*      Update time 2021-02-01,10:46:59      */
/*
/*
/*      Email: chentx@csit.net.cn      */
/*
/*****/
rett = 0 , rett2 = 0 , ret_dm = 0
Machine ID: ARM-5254-0064-7CCA-61A02B00
/opt/apps/org.gnome.uDDS/files/uDDS/ddsLic/lickey
available time: 59 days.
check success
MultiRecvSocket = 5
MultiSendSocket = 6
Process Query Thread ID is 0
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 3
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 3After
is : 1
CreateDataReader 0 succeed,DomainID is 3
CreateDataReader 1 succeed,DomainID is 3
CreateDataReader 2 succeed,DomainID is 3

```

图 5 配置成功运行效果图

5) uDDS 配置完成。

### 3. 测试说明

- 1) 打开终端，在终端中输入./Pub.sh，程序正常运行，可以看见数据发布者创建成功打印，也可以看见 SPDP 相关打印，印证创建数据发布者和加入数据域功能正常,如图 6 所示:

```

CreateDataWriter 0 succeed,DomainID is 3
CreateDataWriter 1 succeed,DomainID is 3
CreateDataWriter 2 succeed,DomainID is 3
CreateDataWriter 3 succeed,DomainID is 3
CreateDataWriter 4 succeed,DomainID is 3
CreateDataWriter 5 succeed,DomainID is 3
CreateDataWriter 6 succeed,DomainID is 3
CreateDataWriter 7 succeed,DomainID is 3
CreateDataWriter 8 succeed,DomainID is 3
CreateDataWriter 9 succeed,DomainID is 3
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 3
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 3After
ber is : 1
CreateDataWriter 0 succeed,DomainID is 5
CreateDataWriter 1 succeed,DomainID is 5
CreateDataWriter 2 succeed,DomainID is 5
CreateDataWriter 3 succeed,DomainID is 5
CreateDataWriter 4 succeed,DomainID is 5
CreateDataWriter 5 succeed,DomainID is 5
CreateDataWriter 6 succeed,DomainID is 5
CreateDataWriter 7 succeed,DomainID is 5
CreateDataWriter 8 succeed,DomainID is 5
CreateDataWriter 9 succeed,DomainID is 5

```

图 6 发布创建和 SPDP 示例图

- 2) 再打开另外一个终端，在终端输入./Sub.sh,程序正常运行，可以看见数据发布者创建成功打印，也可以看见 SPDP 和 SEDP 相关打印，印证创建数据订阅者和加入数据功能正常,如图 7 所示:

```

SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 5After ADD the Remote Pa
ber is : 1
CreateDataReader 1 succeed,DomainID is 5
CreateDataReader 2 succeed,DomainID is 5
CreateDataReader 3 succeed,DomainID is 5
CreateDataReader 4 succeed,DomainID is 5
CreateDataReader 5 succeed,DomainID is 5
CreateDataReader 6 succeed,DomainID is 5
CreateDataReader 7 succeed,DomainID is 5
CreateDataReader 8 succeed,DomainID is 5
CreateDataReader 9 succeed,DomainID is 5
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 7
SPDP: Remote Participant's IP address is 192.168.122.47 and domain Id is 7After ADD the Remote Pa
ber is : 5
CreateDataReader 0 succeed,DomainID is 7
CreateDataReader 1 succeed,DomainID is 7
CreateDataReader 2 succeed,DomainID is 7
CreateDataReader 3 succeed,DomainID is 7
CreateDataReader 4 succeed,DomainID is 7

```

图 7 创建订阅者和 SPDP 示例图

- 3) 同时可以看见 Sub 程序收到数据的打印，关闭 Pub 程序后打印停止，印证数据实时传输功能，如图 8 所示:

```
uos@uos-PC: ~/Desktop/A-Tx
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000005
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000006
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000007
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000008
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000009
EDP: Remote: 192.168.122.47 DR match local DW in Domain 7 ! Topic Name: 000010
PDP: Remote Participant's IP address is : 2

ReceiveData DomainID 3; ReceiveCount2 Data: 7 1 myData1
ReceiveData DomainID 3; ReceiveCount2 Data: 7 2 myData2
ReceiveData DomainID 3; ReceiveCount2 Data: 7 3 myData3
ReceiveData DomainID 3; ReceiveCount2 Data: 7 4 myData4
ReceiveData DomainID 3; ReceiveCount2 Data: 7 5 myData5
ReceiveData DomainID 3; ReceiveCount2 Data: 7 6 myData6
ReceiveData DomainID 3; ReceiveCount2 Data: 7 7 myData7
ReceiveData DomainID 3; ReceiveCount2 Data: 7 8 myData8
ReceiveData DomainID 3; ReceiveCount2 Data: 7 9 myData9
ReceiveData DomainID 3; ReceiveCount2 Data: 7 10 myData10
```

图 8 主题匹配和数据传输示例图

#### 4. 使用说明

详情参考《uDDS 开发手册》