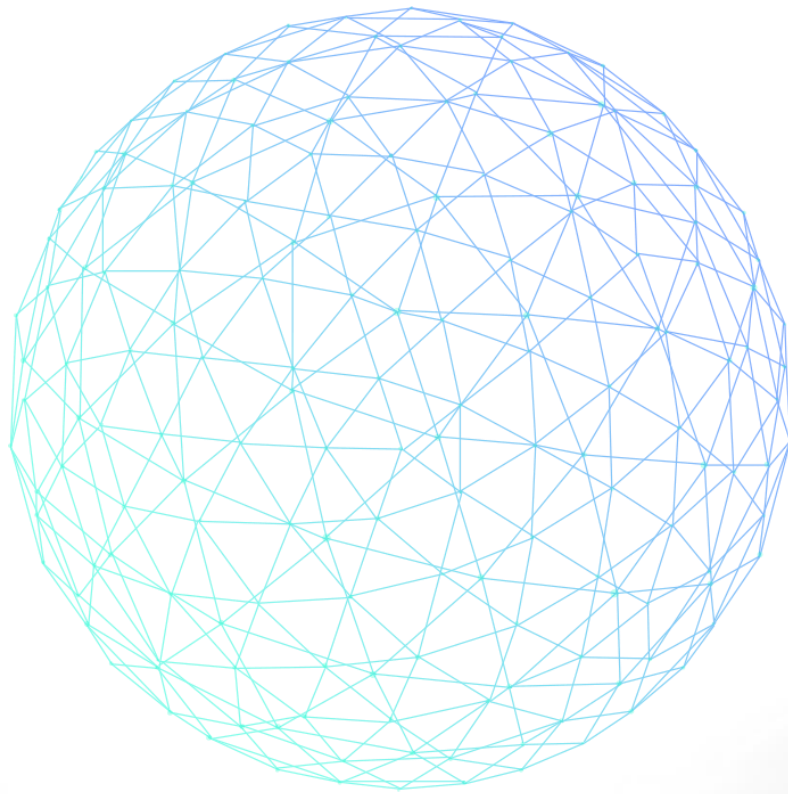


DaaS Platform

Deployment on Virtual Machine



【Version : 3.6.1】

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1. Environment Preparation

1.1 Environment Check

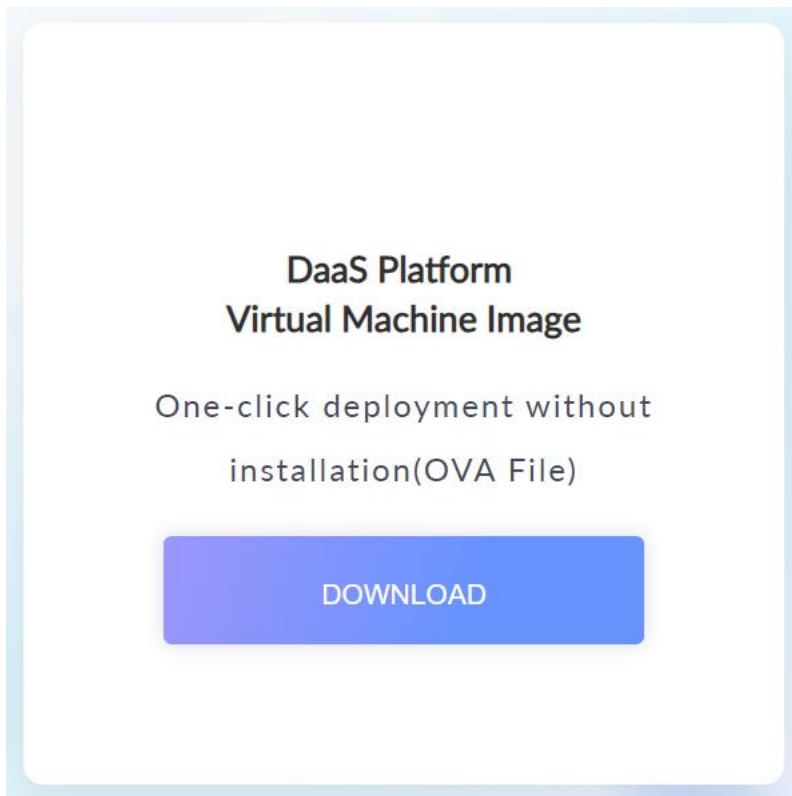
Ensure the virtual machine can import ova files. VMware or VirtualBox is recommended. The following example is based on VirtualBox.

The hardware resource should at least support **2 CPUs and 4GB RAM**. It is recommended to have at least **4 CPUs and 8GB RAM**.

1.2 Download Virtual Machine File

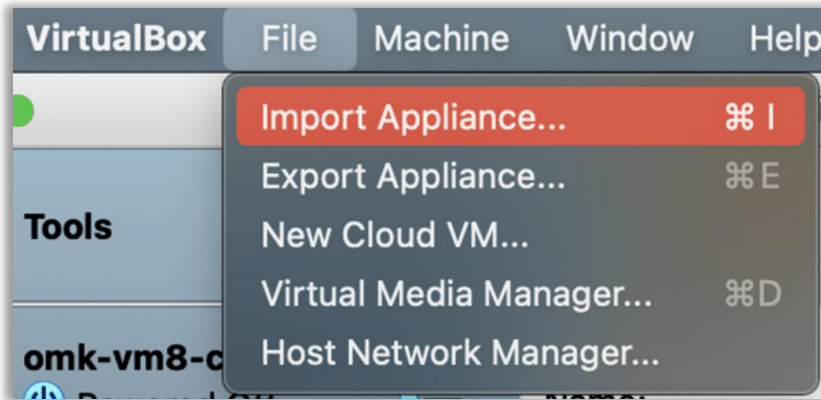
Visit the download page <https://www.sqlynx.com>

Select the virtual machine image and click to download.

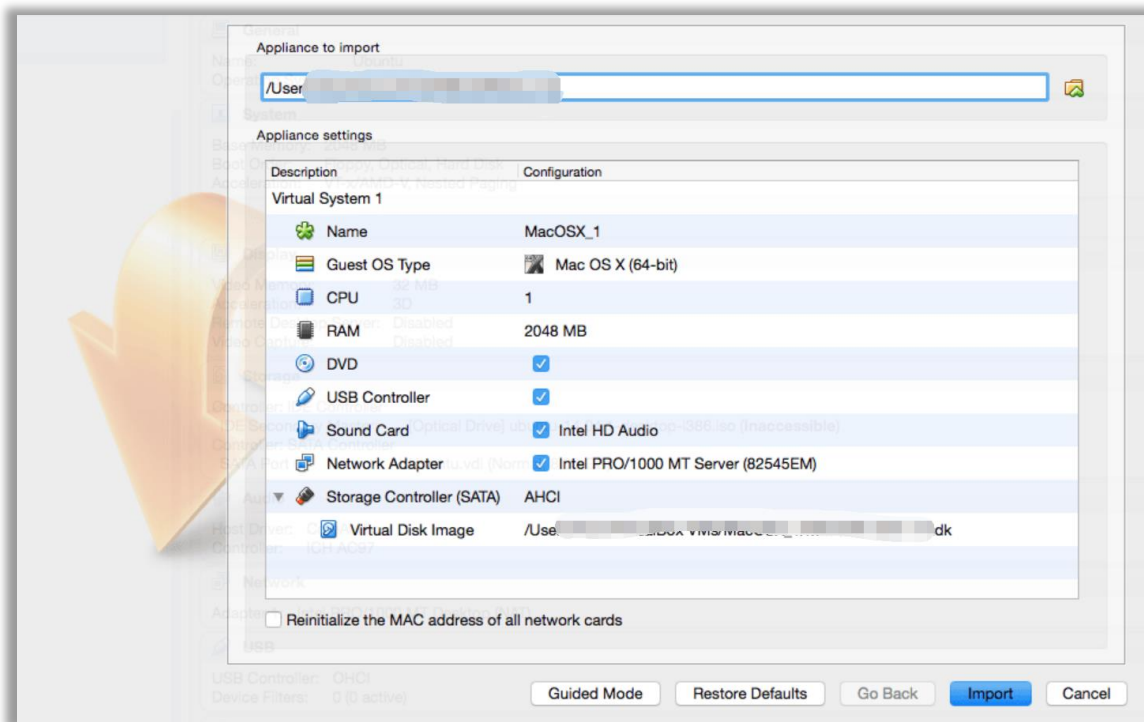


2. Import Image (Example with VirtualBox)

Import ova File



Choose the local ova file path and click continue.



Select "Import," and after completion, start the virtual machine.

3. Configure Environment

3.1 Log in to the system and configure IP settings

Default username and password: root/maicong

```
[root@maicong ~]# ifconfig
enp0s17: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.3.16 netmask 255.255.255.0 broadcast 192.168.3.255
    inet6 fe80::6011:b442:c9ef:39e2 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:31:fd:0f txqueuelen 1000 (Ethernet)
    RX packets 101 bytes 13277 (12.9 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 57 bytes 8633 (8.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 53 bytes 17833 (17.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 53 bytes 17833 (17.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@maicong ~]#
```

3.2 Check the Database

Log in to the database: maicong

Enter psql

```
psql -h <local IP> -U postgres
```

```
[root@node1 software]# psql -h 172.17.82.137 -U postgres
```

View the databases created:

```
select * from pg_database;
```

If the database is not started, follow the PostgreSQL documentation to start the database.

```
postgres=# select * from pg_database;
 oid | datname | datdba | encoding | datcollate | datctype | datistemplate | datallowconn | datconnlimit | datlastsysoid | datfrozensid | datminmxid | dattablespace | datacl
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
 14185 | postgres |  | 10 | 6 | en_US.UTF-8 | en_US.UTF-8 | f |  |  |  |  |  |  | t
  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
 16384 | maicong |  | 10 | 6 | en_US.UTF-8 | en_US.UTF-8 | f |  |  |  |  |  |  | t
  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
 1 | template1 |  | 10 | 6 | en_US.UTF-8 | en_US.UTF-8 | t |  |  |  |  |  |  | t
  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
s_postgres=Ctc/postgres}
 14184 | template0 |  | 10 | 6 | en_US.UTF-8 | en_US.UTF-8 | t |  |  |  |  |  |  | f
  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
s_postgres=Ctc/postgres}
(4 rows)
```


3.3 Modify Configuration Files

3.3.1 Modify the config/maicong.yaml File

Enter the maicongsoftware_<actual version number> directory and update the configuration file according to the example.

```
vi config/maicong.yaml
```

***Note:** There should be an English space after the colon “:”.

```

===== MaiCongSoftWare Configuration =====
#
# NOTE: MAICONGSOFTWARE comes with reasonable defaults for most settings.
#       Before you set out to tweak and tune the configuration, make sure you
#       understand what are you trying to accomplish and the consequences.
#
# The primary way of configuring a node is via this file. This template lists
# the most important settings you may want to configure for a production cluster.
#
# Please consult the documentation for further information on configuration options:
# http://www.maicongs.com/#/listdocu
#
# ----- Network -----
# ----- API -----
# the parameter valid for user use restful api to create api and download, backend server ip
# and port
# some times maybe virtual IP for cluster, fg nginx need to set to nginx server ip and port,
# format: http://localhost:8080
# must
VirtualIP: http://192.168.1.100:8083
# set the server run port for backend and frontend, this is backend port
# must
server.port: 8083

# ----- DB configuration -----
# -----
master.datasource.driverClassName: org.postgresql.Driver
master.datasource.initial-size: 10
master.datasource.max-active: 100
master.datasource.min-idle: 10
# set the username and password for db use
master.datasource.username: postgres
master.datasource.password: 123456
# set the connection url for db
master.datasource.url: jdbc:postgresql://192.168.1.100:5432/maicong
#master.datasource.url: jdbc:postgresql://192.168.1.100:5432/maicong
# ----- CUSTOM Only for Hadoop -----
# -----
hadoop.metastore.upperlow: 1
# set the hadoop db filter, if you don't want to get all hadoop dbs, you can set the paramete
r
# the format is: dbID1:dbName1,dbName2;dbID2:dbName1,dbName2
config.hadoop.filter:
# set the filePath for hadoop kerberos certification files
filePath: /software/maicongsoftware/keytab
# set the server is master, if master, set 1, if not slave. one cluster only one master
master: 1

# ----- LOG -----
# log level, you can set info, error, warn, debug
logging.level.com.mc.dao: info
  
```

***Note:**

virtualIP: Server address:port

server.port: Default system start-up port

master.datasource.password: PostgreSQL connection password (a space is required after the colon)

master.datasource.url: The connection string in the PostgreSQL database includes IP, port, and database name (here as maicong, which is the database name created in the initial installation of POSTGRES12)

filePath: Path to store the Kerberos keytab in Hadoop (this needs to be configured if connecting to Hadoop Kerberos, otherwise not needed).

3.3.2 Modify the static/config.js File

```
BASE_URL="Local backend address: port"
```

```
vi static/config.js
```

```
window.global_config = {  
  BASE_URL: "http://(IP):8083/",  
};
```

3.4 Start the Software

Add execution permission to the startup file app.sh

```
chmod +x maicong-daas.sh
```

Configure Java startup memory

```
vi maicong-daas.sh
```

Modify -xms and -mxm for startup and maximum memory (adjust according to the actual server situation)

```

#!/bin/bash
SIGNAL=${SIGNAL:-TERM}
SHELL_FOLDER=$(cd "$(dirname "$0")";pwd)
APP_JAR=$(cd $SHELL_FOLDER;ls Maicong-DaaS-*.jar)
LOG_PATH=$SHELL_FOLDER/log
PID=""
CMD=""

JAVA_OPTS="
-server
-Xms2g
-Xmx4g
-XX:+UseG1GC
-XX:+UseStringDeduplication
-XX:+AlwaysPreTouch
-XX:+PrintGCDetails
-XX:+PrintGCTimeStamps
-XX:+PrintGCCause
-Xloggc:$LOG_PATH/maicong-daas-gc.log
-XX:+HeapDumpOnOutOfMemoryError
-XX:HeapDumpPath=$LOG_PATH/maicong-daas-heapdump
-Dfile.encoding=utf-8"

start(){
  if [ -n "$PID" ]; then
    echo -e "\e[31mmaicong-daas server is running \ef0m"
  fi
}

```

Start the application:

```
./maicong-daas.sh start
```

```

[root@node1 maicongsoftware_3.1.0.2]# chmod +x maicong-daas.sh
[root@node1 maicongsoftware_3.1.0.2]# ./maicong-daas.sh start

maicong-daas server is started.
JAVA_OPTS:
-server
-Xms2g
-Xmx4g
-XX:+UseG1GC
-XX:+UseStringDeduplication
-XX:+AlwaysPreTouch
-XX:+PrintGCDetails
-XX:+PrintGCTimeStamps
-XX:+PrintGCCause
-Xloggc:/software/maicongsoftware_3.1.0.2/log/maicong-daas-gc.log
-XX:+HeapDumpOnOutOfMemoryError
-XX:HeapDumpPath=/software/maicongsoftware_3.1.0.2/log/maicong-daas-heapdump
-Dfile.encoding=utf-8

```

***Note:** The system needs to be started in the folder where maicong-daas.sh is located.

Stop the application:

```
./maicong-daas.sh stop
```

***Note:** The log file is in log/maicong-daas-console.log


```

2022-05-23 17:00:56.830 [main] INFO com.mc.MainApplication - Starting MainApplication v3.1.0
.1-release on node1 with PID 2371 (/software/maiconsoftware_3.1.0.2/Maicong-DaaS-3.1.0.1-rel
ease.jar started by root in /software/maiconsoftware_3.1.0.2)
2022-05-23 17:00:56.834 [main] INFO com.mc.MainApplication - No active profile set, falling
back to default profiles: default
2022-05-23 17:00:58.918 [main] INFO o.s.boot.web.embedded.tomcat.TomcatWebServer - Tomcat in
itialized with port(s): 8083 (http)
2022-05-23 17:00:58.936 [main] INFO org.apache.coyote.http11.Http11NioProtocol - Initializin
g ProtocolHandler ["http-nio-8083"]
2022-05-23 17:00:58.937 [main] INFO org.apache.catalina.core.StandardService - Starting serv
ice [Tomcat]
2022-05-23 17:00:58.937 [main] INFO org.apache.catalina.core.StandardEngine - Starting Servl
et engine: [Apache Tomcat/9.0.27]
2022-05-23 17:00:59.034 [main] INFO o.a.c.core.ContainerBase.[Tomcat].[localhost].[/] - Init
ializing Spring embedded WebApplicationContext
2022-05-23 17:00:59.034 [main] INFO org.springframework.web.context.ContextLoader - Root Web
ApplicationContext: initialization completed in 2132 ms
2022-05-23 17:01:00.851 [main] INFO o.s.scheduling.concurrent.ThreadPoolTaskExecutor - Init
ializing ExecutorService
2022-05-23 17:01:00.852 [main] INFO o.s.scheduling.concurrent.ThreadPoolTaskExecutor - Init
ializing ExecutorService 'exportExecutor'
2022-05-23 17:01:01.191 [main] INFO o.s.b.a.web.servlet.WelcomePageHandlerMapping - Adding w
elcome page: ServletContext resource [/index.html]
2022-05-23 17:01:01.497 [main] INFO o.s.scheduling.concurrent.ThreadPoolTaskScheduler - Init
ializing ExecutorService 'taskScheduler'
2022-05-23 17:01:01.572 [main] INFO org.apache.coyote.http11.Http11NioProtocol - Starting Pr
otocolHandler ["http-nio-8083"]
2022-05-23 17:01:01.621 [main] INFO org.mortbay.log - Logging to Logger[org.mortbay.log] via
org.mortbay.log.Slf4jLog
2022-05-23 17:01:01.647 [main] INFO o.s.boot.web.embedded.tomcat.TomcatWebServer - Tomcat st
arted on port(s): 8083 (http) with context path ''
2022-05-23 17:01:01.652 [main] INFO com.mc.MainApplication - Started MainApplication in 6.32
3 seconds (JVM running for 8.028)
2022-05-23 17:01:02.012 [main] INFO com.alibaba.druid.pool.DruidDataSource - {dataSource-1}
inited
maicon-daaS-log (FEND)
    
```

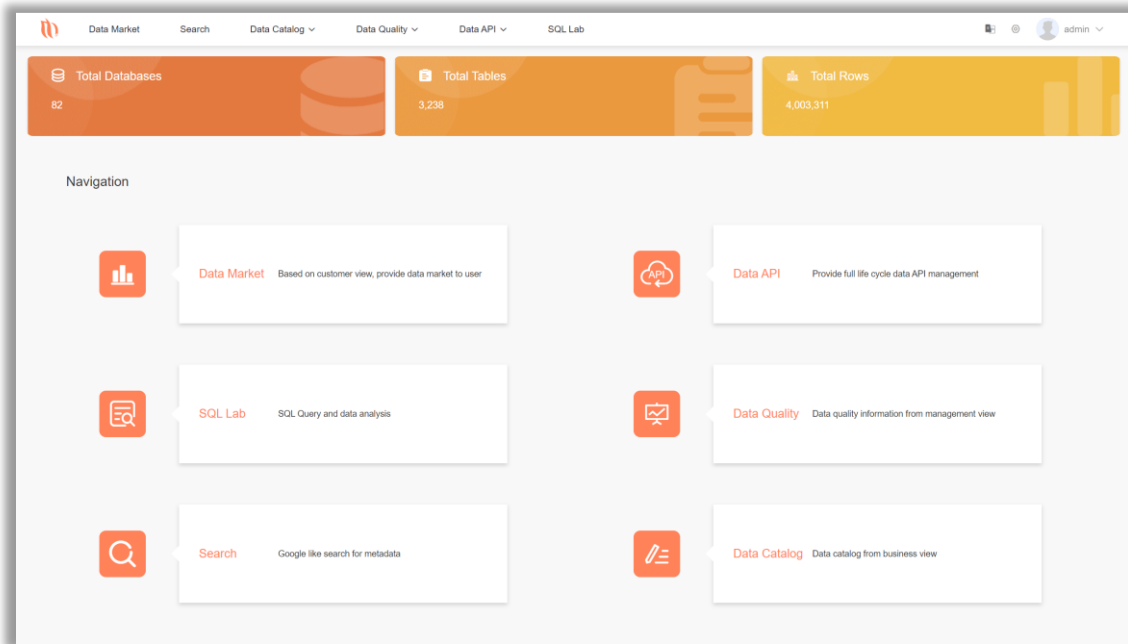
3.5 Verify Installation

Test Login

Visit ip:port



If this interface is displayed, it means login is successful.



Enter the initial username and password: admin/123456 to log in and proceed with further configuration.