OASE Operation Autonomy Support Engine

Online installation

※”Operation Autonomy Support Engine” is referred to as “OASE” in this manual.

Version 1.0

Exastro developer

Table of contents

1. Introduction
   1.1 About this manual

2. System configuration
   2.1 Requirements(1/2)
   2.2 Requirements(2/2)

3. OASE environment construction procedure
   3.1 Online installation
   3.2 Advance preparation (1/2)
   3.3 Advance preparation (2/2)
   3.4 OASE environment construction flow
   3.5 Environment construction (1/7)
   3.6 Environment construction (2/7)
   3.7 Environment construction (3/7)
   3.8 Environment construction (4/7)
   3.9 Environment construction (5/7)
   3.10 Environment construction (6/7)
   3.11 Environment construction (7/7)

4. OASE operation check
   4.1 Operation check (1/7)
   4.2 Operation check (2/7)
   4.3 Operation check (3/7)
   4.4 Operation check (4/7)
   4.5 Operation check (5/7)
   4.6 Operation check (6/7)
   4.7 Operation check (7/7)

1. Introduction

About this manual

- This manual describes the procedure to construct OASE in all-in-one configuration(described later) with installer using external repository.

2. System configuration

2.1 Requirements(1/2)

To operate OASE, the following environment is required.

- Server requirements
- (Please refer to Documents for the construction method of middleware.)

  https://exastro-suite.github.io/oase-docs/documents.html

OS	CentOS	7.5.1804
Web server	Nginx	1.17.1
Framework	Django	2.1.3
Database	MySQL	8.0.16
Language	python	3.6.5
	OpenJDK	1.8.0_212
Python Library	openpyxl	2.5.14
Red Hat	Decision Manager	7.3.1
	JBoss EAP	7.2.0

2.2 Requirements(2/2)

- System requirements(For reference)

OS	Linux Centos7
CPU	Intel Xeon E312xx (Sandy Bridge)
CPU cores	**6 core**
メモリ	8 GB
HDD	90GB

- Client side PC requirements

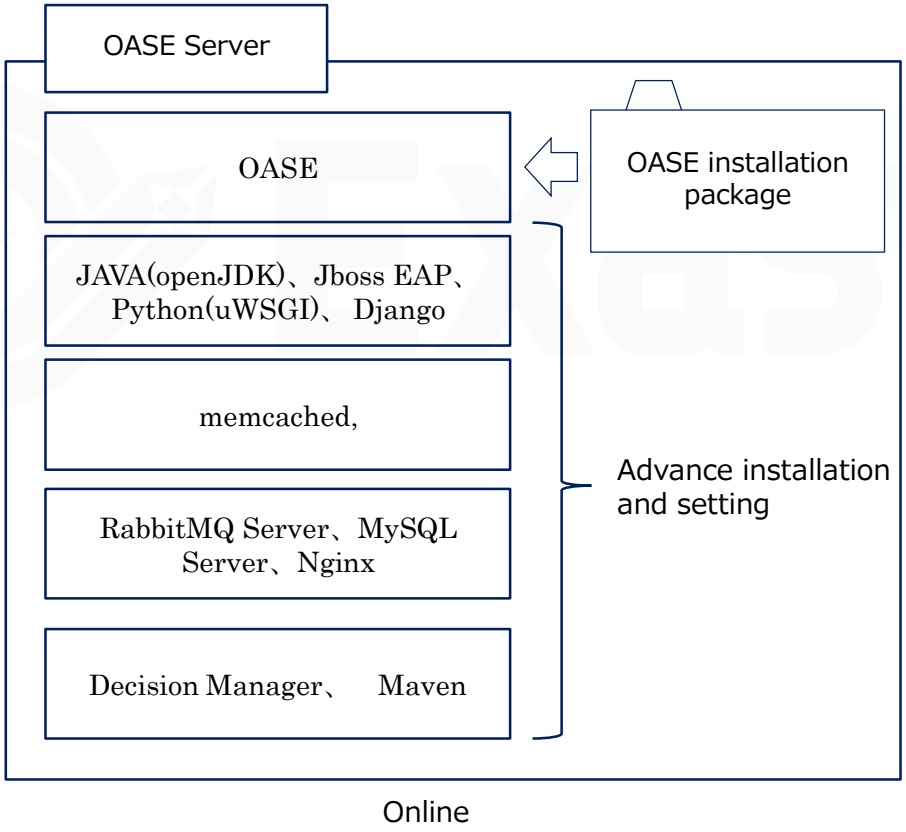
OS	windows	Windows7 or higher
Software	Excel	MS Office 2016
Browser	InternetExplorer	11
	FireFox	64.0
	Chrome	72.x or higher

3. OASE environment construction procedure

3.1 Online installation

About the installation procedure

- If the OASE server is in online environment, the system configuration is performed by installing required library from internet and executing OASE installer.



3.2 Advance preparation（1/2）

OASE environment construction tool list

- The list of OASE environment construction tool is as follows.

Description	File	Storage path
OASE installer	oase_online_installer.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/
Application environment construction tool	oase_app_setup_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
Library collection script	oase_common_libs.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
Database environment construction tool	oase_db_setup_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
Environment construction tool	oase_deployment_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
Middleware environment construction tool	oase_middleware_setup_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/

3.3 Advance preparation（2/2）

OASE environment construction tool list

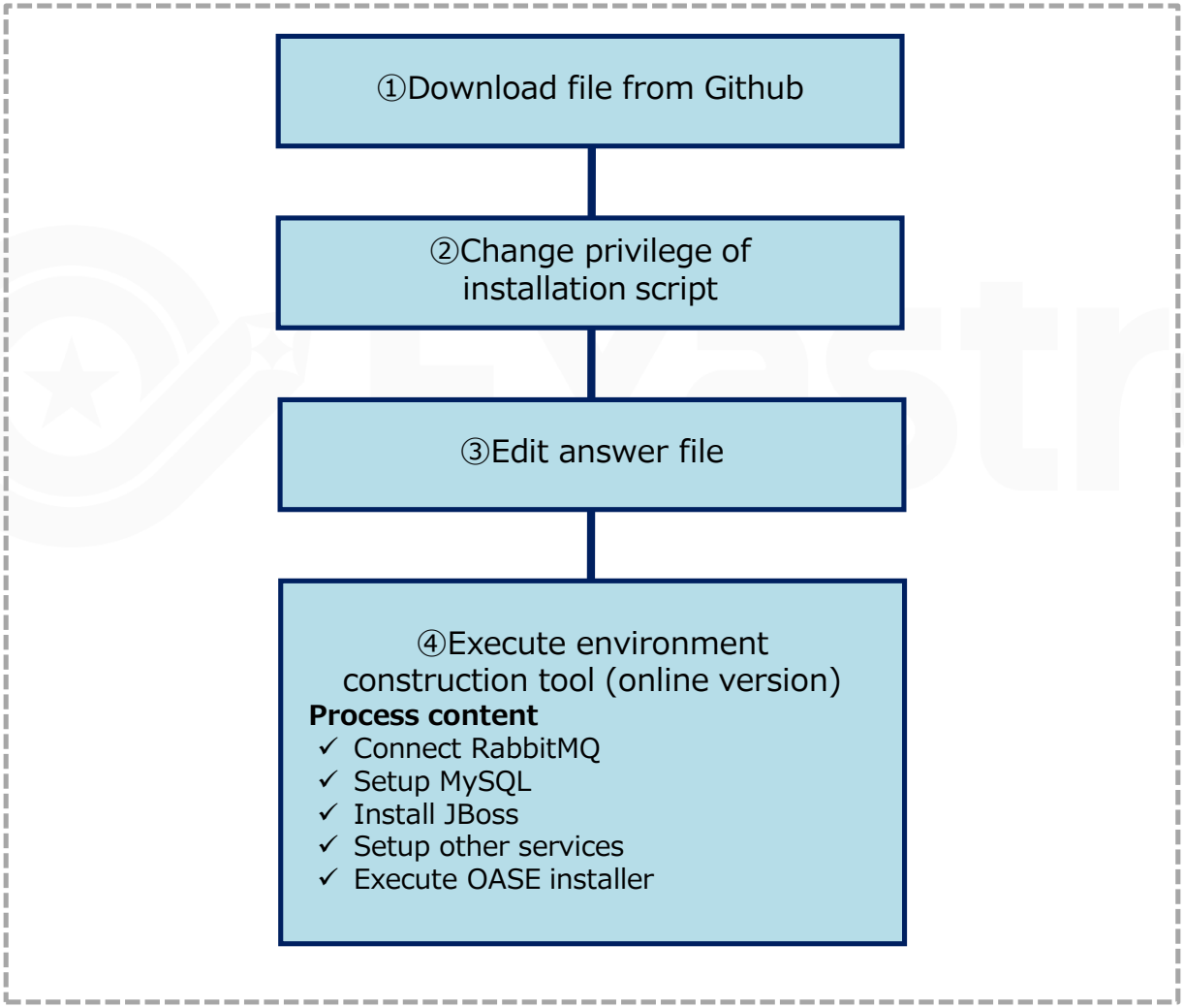
- The list of OASE environment construction tool is as follows.

Description	File	Storage path
OASE service setup tool	oase_service_setup_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
OASE environment setting tool	oase_settings_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
OASE uninstall tool	oase_uninstall_core.sh	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/bin/
Answer file	oase_answers.txt	/(installation file storage)/oase-1.0.0/oase_install_package/install_scripts/

3.4 OASE environment construction flow

Environment construction flow (Online)

- The flow of environment construction is as follows.



3.5 Environment construction（1/7）

Download file from Github

- Download file via the following command.

```
$ wget https://github.com/exastro-suite/oase/archive/vx.x.x.tar.gz
```

※Please install wget command beforehand.
※Please change the version(x.x.x) properly.

Change the privilege of installation script

- Extract zip file and change the privilege of installation script

```
$ tar zxf vx.x.x.tar.gz
$ find ./oase-x.x.x/oase_install_package/install_scripts/ -type f -name *.sh | xargs chmod 755
```

Edit answers file

- /oase-x.x.x/oase_install_package/install_scripts/oase_answers.txt

3.6 Environment construction (2/7)

Edit answers file(1/2)

- The way to edit the setting file(oase_answers.txt) of OASE environment construction is as follows.

Item	Required	Default value	Description
install_mode	○	Install	
RabbitMQ_username	○	-	Username of RabbitMQ
RabbitMQ_password	○	-	Password of RabbitMQ
RabbitMQ_queuename	○	-	Queue name of RabbitMQ (Since it will be generated, any desired name is OK)
RabbitMQ_ipaddr	○	-	IP address of RabbitMQ
db_root_password	○	-	Root password of MySQL
db_name	○	-	Name of the MySQL database for OASE
db_username	○	-	Username of the MySQL database for OASE
db_password	○	-	Password of the MySQL database for OASE
db_erase	○	-	Erase or keep the database when uninstalling OASE
jboss_root_directory	○	-	Installation path of Jboss
rhdm_adminname	○	-	Administrator name of RHDM

3.7 Environment construction (3/7)

Edit answers file(2/2)

- The way to edit the setting file(oase_answers.txt) of OASE environment construction is as follows.

Item	Required	Default value	Description
rhdm_password	○	-	Password of RHDM
dm_ipaddrport	○	-	IP address and port number of RHDM
rulefile_rootpath	○	-	Root path of RHDM rule setting file (Since it will be generated, any desired path is OK)
apply_ipaddrport	○	-	IP address and port to start Apply service
mavenrep_path	○	-	Storage path of RHDM Maven jar file
oasemail_smtp	○	-	Setting of OASE mail server
oase_directory	○	-	Installation target directory of OASE
oase_session_engine	○	-	The way to keep OASE session
ev_location	○	-	IP address to execute clone job when connected with ActiveDirectory
oase_language	○	ja	Language of OASE
oase_os	○	-	Environment OS
oase_base	○	yes	Select installation content

3.8 Environment construction (4/7)

Description sample of answer file(oase_answers.txt) 1/3

- The description sample of answer file(oase_answers.txt) is as follows.

```
#Select install mode. ("Install" or "Uninstall")
# e.g) install_mode:Install
install_mode:Install
##############################
# RabbitMQ
##############################
# Decide the RabbitMQ_username.
# e.g) RabbitMQ_username:sample_rabbitmq_username
RabbitMQ_username:sample_rabbitmq_username
# Decide the RabbitMQ_password.
# e.g) RabbitMQ_password:sample_rabbitmq_password
RabbitMQ_password:sample_rabbitmq_password
# Decide the RabbitMQ_queuename.
# e.g) RabbitMQ_queuename:oase
RabbitMQ_queuename:oase
# Enter IP address for RabbitMQ.
# e.g) RabbitMQ_ipaddr:xxx.xxx.xxx.xxx
RabbitMQ_ipaddr:192.168.0.1
##############################
# MySQL
##############################
# Enter the MySQL root user's password
# e.g) db_root_password:sample_root_password
db_root_password:sample_root_password
# Decide the database name, username, and password for OASE.
# e.g) db_name:sample_db_name
db_name:sample_db_name
# e.g) db_username:sample_db_username
db_username:sample_db_username
# e.g) db_password:sample_db_password
db_password:sample_db_password
# In uninstall mode,
# Select "erase" or "leave" oase database
# e.g) db_erase:erase
db_erase:erase
##############################
# JBoss EAP
##############################
# Enter JBoss install directory.
# e.g) jboss_root_directory:/exastro/JBoss/EAP-7.2.0
jboss_root_directory:/exastro/JBoss/EAP-7.2.0
```

3.9 Environment construction（5/7）

Description sample of answer file(oase_answers.txt) 2/3

```
##############################
# RHDM
##############################
# Decide the Administrator name, password.
# e.g) rhdm_adminname:admin0000
rhdm_adminname:admin0000
# e.g) rhdm_password:password@1
rhdm_password:password@1
# Enter IP address & port for Decision Manager.
# e.g) dm_ipaddrport:localhost:8080
dm_ipaddrport:localhost:8080
##############################
# RULEFILE
##############################
# Enter root path for RULEFILE.
# e.g) rulefile_rootpath:/exastro/rule
rulefile_rootpath:/exastro/rule
##############################
# APPLY
##############################
# Enter IP address & port for APPLY SERVICE.
# e.g) apply_ipaddrport:127.0.0.1:50001
apply_ipaddrport:127.0.0.1:50001
##############################
# Maven
##############################
# Enter repository path for Maven.
# e.g) mavenrep_path:/root/.m2/repository/com/oase/
mavenrep_path:/root/.m2/repository/com/oase/
##############################
# OASEメールSMTP設定
##############################
# Enter smtp settings.
# e.g) oasemail_smtp:"{'IPADDR':'127.0.0.1','PORT':25,'AUTH':False}"
oasemail_smtp:"{'IPADDR':'127.0.0.1','PORT':25,'AUTH':False}"
##############################
```

3.10 Environment construction（6/7）

Description sample of answer file(oase_answers.txt) 3/3

```
################################
# OASEインストールディレクトリ
################################
# Enter OASE install directory.
# e.g) oase_directory:/exastro
oase_directory:/exastro
################################
# settings.py
################################
# Select Session management.("db" or "file" or "cache")
# e.g) oase_session_engine:cache
oase_session_engine:cache
# Decide the EVTIMER SERVER location
# e.g) ev_location:127.0.0.1
ev_location:127.0.0.1
# Select language. ("en_us" or "ja")
# e.g) oase_language:ja
oase_language:ja
# Select Operation System. ("RHEL6" or "RHEL7")
# e.g) oase_os:RHEL7
#oase_os:RHEL7
################################
# インストール対象選択
################################
# Select targets you need to install.
# yes : need
# no  : no need
oase_base:yes
# ZABBIX_adapter:yes
# ITA_driver:yes
# mail_driver:yes
```

3.11 Environment construction（7/7）

Change directory

- Move to the directory which contains the settings file and shell for environment construction

```
$ cd oase-x.x.x/oase_install_package/install_scripts
```

Execute environment construction tool(online version)

- Execute environment construction tool with the following command.

```
$ sh oase_online_installer.sh
```

- The installation of OASE is completed.

4. OASE operation check

4.1 Operation check（1/7）

Check the display of main menu.

- Please check if OASE and drivers are displayed correctly by accessing the main menu of OASE system from user’s windows PC by following the steps below.

Preparation for HTTPS access

- Please add the IP address and host name of the OASE server to the hosts file in client device(Windows).
- For Windows10, the hosts file is as follows.

```
C:¥Windows¥System32¥drivers¥etc¥hosts
```

- Please add the following setting to hosts file

```
“IP address of OASE server”　exastro-oase

Example)
192.168.0.3　exastro-oase
```

4.2 Operation check (2/7)

Import certificate to client device(Windows)

- The certificate is stored in the following path of OASE installation package.
- Download the file to client device via tools such as FFFTP or WinSCP.

OS of OASE server	File path	File name
RHEL 7, CentOS 7 series	/(installation file path)/oase-1.0.0/oase-root	exastro-oase.crt

- Please import certificate to Web browser.
- The procedure to import certificate to Google Chrome is as follows.

① Start Google Chrome and go to [Settings] from the [Settings] button at the top right to proceed .
② After clicking[Advanced]at the bottom of the screen, click[Manage certificates] from the item displayed.
③ Go to the Trusted Root Certification Authorities tab and click Import at the bottom left.
④ The import certificate wizard starts. Click Next.
⑤ Specify the file name to import and click [Next].
⑥ Make sure that certificates are placed in the next store (P) where it should be checked.
⑦ Select [Trusted Root Certification Authorities] and click [Next].
※ If it is not selected, please select [Trusted Root Certification Authorities] from [Reference] on the right side .
⑧ Click [Finish].

4.1 Operation check（3/7）

Access URL

- Please access the login screen from the following URL.
- URL : **https://exastro-oase/oase_web/top/login**

※Accessing from both HTTP and HTTPS are available after installation.
Since HTTP is insecure, accessing from HTTPS is recommended.
Please check from Operation check(3/7) for the method to access from HTTP.

Login

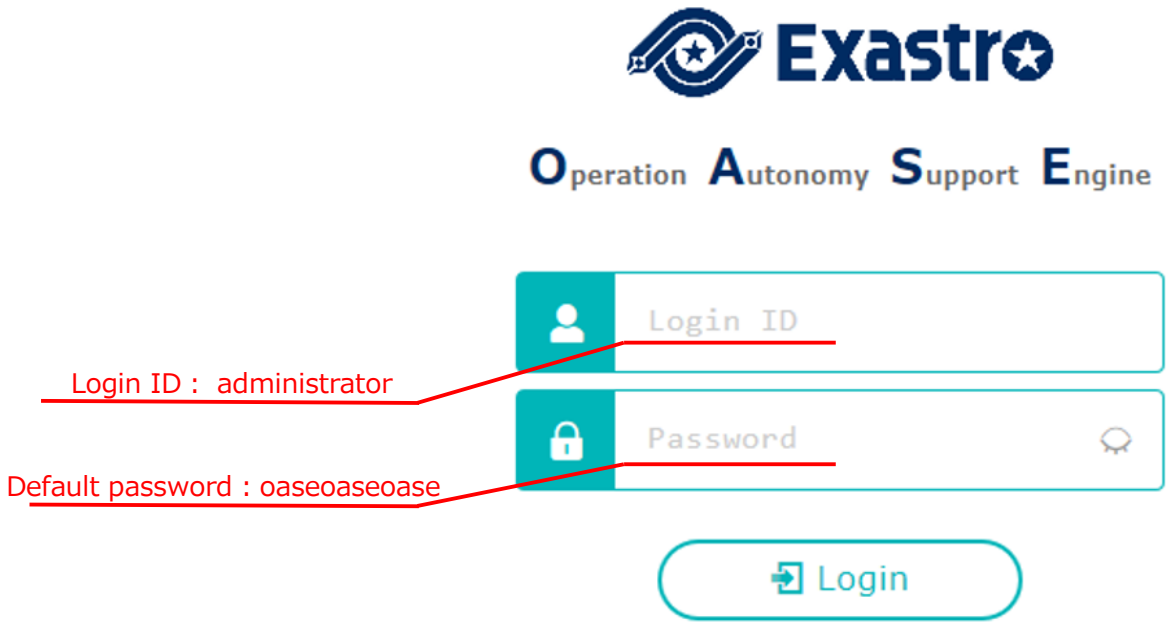
- Please enter the specific Login ID and default password then click the [Login] button when the login screen of OASE is displayed.
  - Login ID　　：administrator
  - Default password：oaseoaseoase

- The screen will move to [Change password screen] if it is the first login after installation.
- Please change the default password from the change password screen.

4.4 Operation check（4/7）

OASE login screen

- If OASE is installed properly, the following login screen will be displayed.



4.5 Operation check（5/7）

Check contents according to the display of each menu

- Please check if the following menu are displayed after login.

Function	Menu
OASE screen	DashBoard
	Rule
	System
	Management

4.3 Operation check（6/7）

Enable HTTP access

To enable HTTP access, please perform the following procedure.

- After installation, edit the generated “/etc/nginx/conf.d/oase.conf” file

```
  server {
   listen 80;
   server_name exastro-oase;
   return 301 https://$host$request_uri;
}
```

comment out(#) return 301 https://$host$request_uri;

then add following code

```
server {
    listen 80;
    server_name exastro-oase;
    location / {
        include uwsgi_params;
        uwsgi_pass unix:///home/uWSGI/uwsgi.sock;
    }
    location = / {
        include uwsgi_params;
        uwsgi_pass unix:///home/uWSGI/uwsgi.sock;
        return 301 /oase_web/top/login;
    }
    location /static {
        alias /exastro/OASE/oase-root/web_app/static;
    }
    error_page   500 502 503 504  /50x.html;
    location = /50x.html {
        root   /usr/share/nginx/html;
    }
}
```

4.3 Operation check（7/7）

- Restart nginx with the following command.

  # systemctl restart nginx

Access URL via HTTP

- Please access the login screen via the following URL
- URL : http:// （IP address of server）

The steps after connection is the same as HTTPS.


Exastro