



OASE Operation Autonomy Support Engine

Quick Start

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

Table of contents

1. Introduction

- 1.1 About this guide
- 1.2 Login screen
- 1.3 Screen description (Dashboard screen)
- 1.4 Screen description (Action setting screen)
- 1.5 Screen Description (Token pay out screen)
- 1.6 Screen description (Decision table screen)
- 1.7 Screen description (rule screen)
- 1.8 Screen description (Request history screen)
- 1.9 Screen description (Action history screen)

2. Scenario description

- 2.1 Scenario

3. Preparation before execution

- 3.1 Setup mail driver and create mail template
- 3.2 Pay out token
- 3.2 Create decision table
- 3.3 Create decision table ※Excel operation
- 3.4 Upload decision table file
- 3.5 Test request
- 3.6 Apply to production environment

4. Operation execution

- 4.1 Send request via curl command
- 4.2 Check the result of action execution

A Appendix

- Sample1

1. Introduction



1.1 About this guide (1/2)

Prerequisites

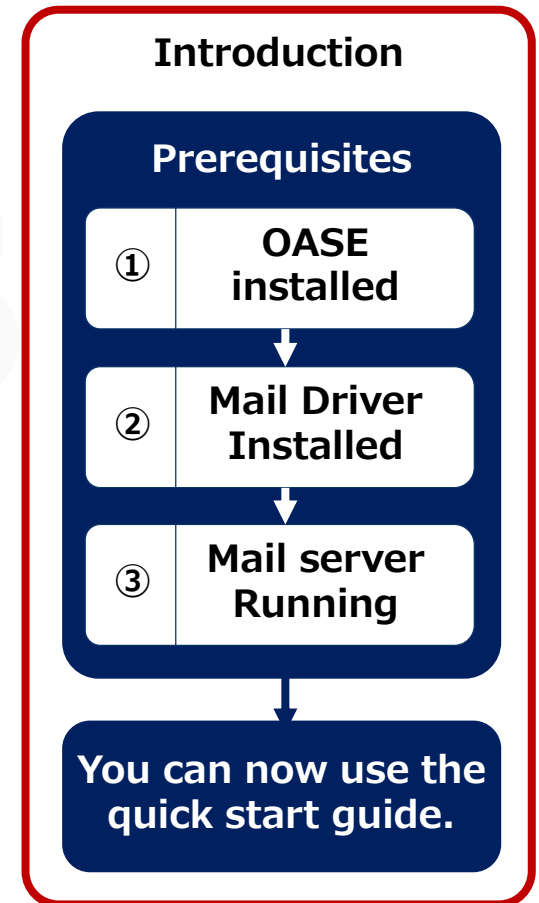
In order to follow this guide, the user must have installed OASE and the following functions.

- ① OASE Installer (See the following guides)
 - [<OASE_docs Environment Construction manual-Basics->](#)
 - [<OASE Learn -OASE Offline install->](#)
- ② Mail Driver (See the following guides)
 - [<Environment Construction manual- Driver install->](#)
- ③ Make sure that the mail server is running.
 - e.g.) Checking that postfix.service is running.

```
# ps -ax | grep postfix
```

※If it isn't running, run the following command.

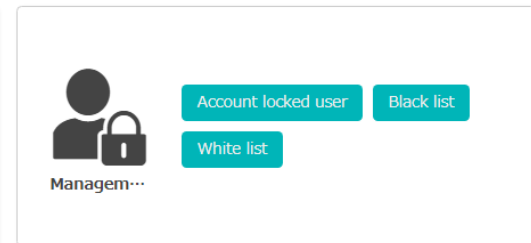
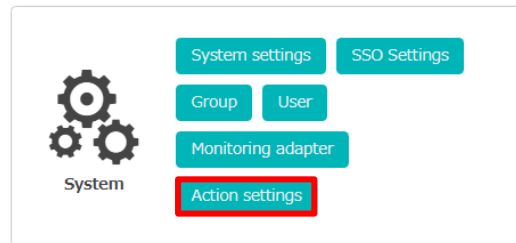
```
# systemctl start postfix
```



1.1 About this guide (2/2)

Functions.

- The following OASE functions will be used. (The item no. correlates the upcoming slides.)
- Dashboard screen

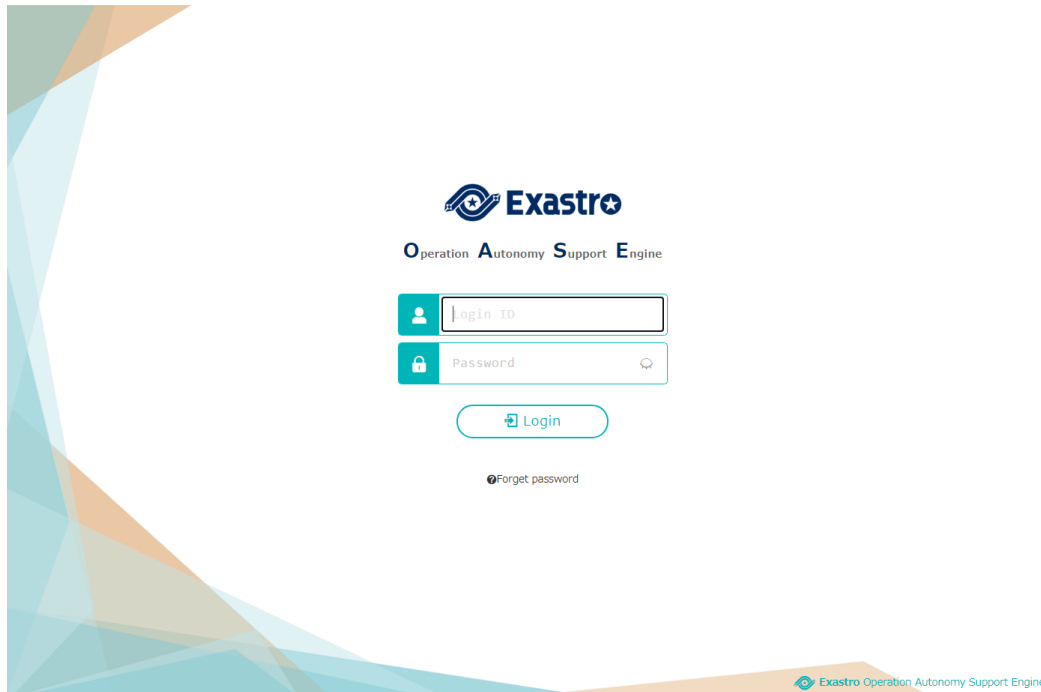


Item No.	Screen name	Path Location
1.2	Login	
1.3	Dashboard	DashBoard
1.4	Action settings	DashBoard > System > Action settings > mail Driver ver1
1.5	Token Pay-out	DashBoard > Rules > Token Pay-out
1.6	Decision Table	DashBoard > Rules > Decision Table
1.7	Rules	DashBoard > Rules > Rules > Staging Application rule
		DashBoard > Rules > Rules > Production Application rule
1.8	Request History	DashBoard > Rules > Request History
1.9	Action History	DashBoard > Rules > Action History

1.2 Screen description (Login screen)

OASE Login

- The login screen will be displayed by accessing the following URL.
https://exastro-oase/oase_web/top/login



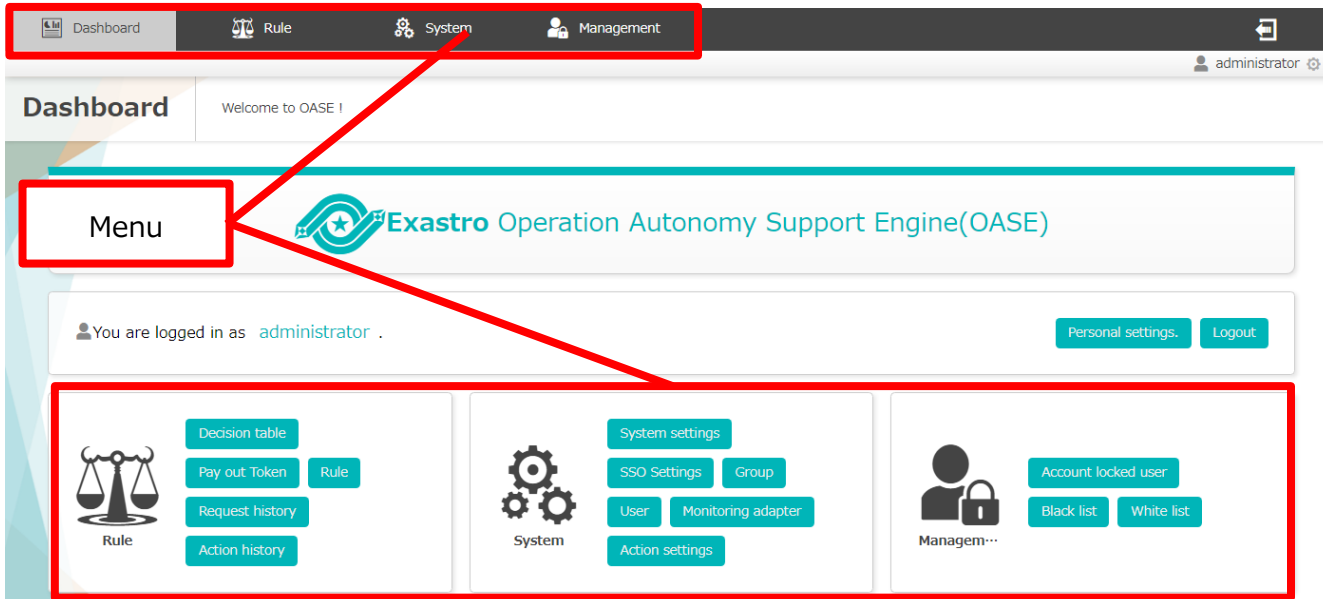
POINT

The password will be requested to be changed immediately after login for the first time.

1.3 Screen Description (Dashboard Screen)

The overview of the main menu is as follows.

- "Rule" Menu : Action result management and Rule creation.
- "System" Menu : OASE Settings/Permission management.
- "Administrator" Menu : Security Management.



1.4 Screen description (Action setting screen)

Function Description

- ① The name of the driver installed in OASE
- ② The information of the registered action target
- ③ The button to add action target information to installed driver
- ④ The button to create mail template

operation	Name	Protocol	smtp server	Port	User name	Last updated by	Last Modified date/time
	oasetest	smtp	...	25			June 24, 2020, 11:37 a.m.

POINT

Please refer to the manuals for details of the functions in each menu.

1.5 Screen description (Token Pay-out)

Function Description

- ① List of Tokens registered in OASE.
- ② Button that creates new Tokens.

Pay out Token

Control	Token name	Start date	End date	Last updated by	Last Modified date/time
	Test	2021, 07, 14, 15:11	July 16, 2021, midnight	administrator	2021, 07, 14, 15:11

Number of items 1 Number to display 50 - 1 / 1 + ▲ ▼

Exastro Operation Autonomy Support Engine(OASE)

POINT

For more information regarding the different functions, please see the respective manuals.

1.6 Screen description (Decision table screen)

Function Description

- ① Decision tables registered to OASE
- ② Button that allows users to download the decision table file
- ③ Button that allows users to add/create new decision tables

operation	Decision table name	Last updated by	Last Modified date/time
			2020, 06, 25, 09:24
			2020, 06, 25, 18:11
			2020, 06, 24, 17:11
			2020, 07, 02, 13:19
			2020, 07, 05, 02:17

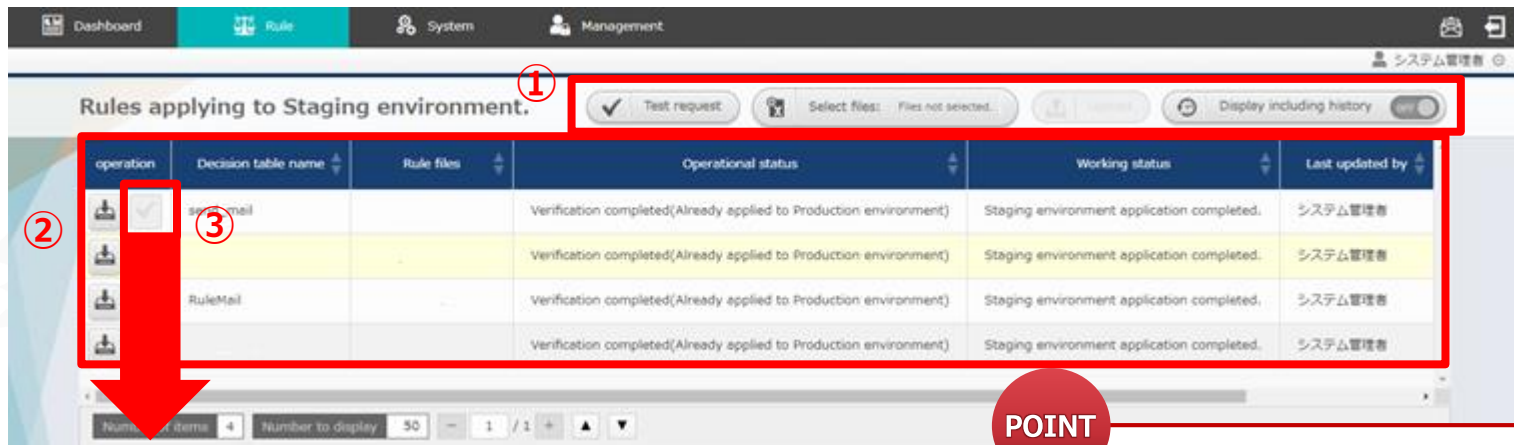
POINT

Please refer to the manuals for details of the functions in each menu.

1.6 Screen description (Rule screen)

Function Description

- ① Decision table file operation buttons.
- ② List of uploaded Decision table files and their status.
- ③ Production environment application button.



POINT

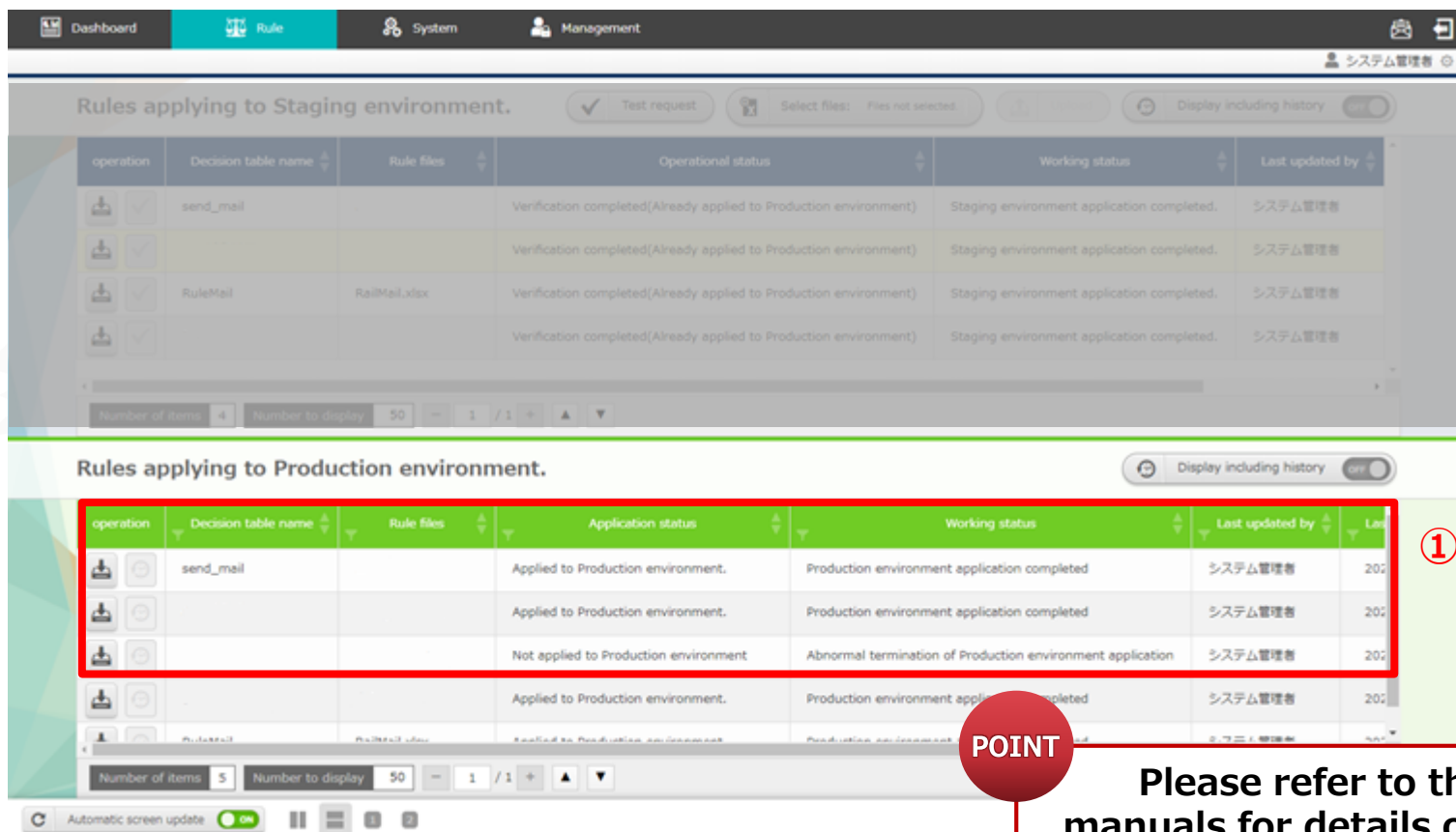
Please refer to the manuals for details of the functions in each menu.

Button ③ becomes available only when a decision table file uploaded to a staging environment is tested.

1.7 Screen description (Rule screen)

Function Description

- ① The list of the rules that are practically operated when messages are sent to OASE



1.8 Screen description (Request history screen)

Function description

- ① The list of the matched rules and their status

Rule matching status	Request type	Decision table name	Request received date/time	Event info
?	Production environment	send_mail	July 3, 2020, 10:13 a.m.	{"EVENT_INFO":["101"]}
✓	Production environment	send_mail	July 3, 2020, 10:09 a.m.	{"EVENT_INFO":["100"]}
?	Production environment	send_mail	July 3, 2020, 9:50 a.m.	{"EVENT_INFO":["101"]}
?	Production environment	send_mail	July 3, 2020, 9:02 a.m.	{"EVENT_INFO":["101"]}
✓	Production environment	send_mail	July 3, 2020, 8:25 a.m.	{"EVENT_INFO":["100"]}
✓	Production environment	send_mail	July 2, 2020, 7:12 p.m.	{"EVENT_INFO":["100"]}
?	Production environment	send_mail	July 2, 2020, 7:10 p.m.	{"EVENT_INFO":["101"]}
?	Production environment	send_mail	July 2, 2020, 1:18 p.m.	{"EVENT_INFO":["101"]}
?	Production environment	send_mail	July 2, 2020, 1:16 p.m.	{"EVENT_INFO":["101"]}
?	Production environment	send_mail	July 2, 2020, 1:15 p.m.	{"EVENT_INFO":["101"]}

Number of items 192 Number to display 50 1 / 4

POINT

Please refer to the manuals for details of the functions in each menu.

1.8 Screen description (Action history screen)

Function description

- ① The list of the matched rules and their status

Status	operation	Decision table name	Rule name	Action type	Last execution date and time	Last executed by
✓		send_mail	name	ITA(ver1)	2020, 07, 03, 10:10	アクションドライバープロセス
✓		send_mail	name	ITA(ver1)	2020, 07, 03, 08:26	アクションドライバープロセス
✓		send_mail	name	ITA(ver1)	2020, 07, 02, 19:12	アクションドライバープロセス
✓		test_mail_table	name	ITA(ver1)	2020, 07, 02, 11:53	アクションドライバープロセス
✓		ディビジョンテーブル名	name	ITA(ver1)	2020, 07, 01, 19:13	アクションドライバープロセス
✓		Zabbix監視ルール	ApacheDown	ITA(ver1)	2020, 07, 01, 13:37	アクションドライバープロセス
✓		DefinedRuleTable	name1	ITA(ver1)	2020, 06, 30, 18:37	アクションドライバープロセス
!		ExDecisonTable	name1	ITA(ver1)	2020, 06, 30, 18:17	アクションドライバープロセス
✓		3542動作確認	ルール1	ITA(ver1)	2020, 06, 25, 19:34	アクションドライバープロセス
✓		メール確認用	Rule1	mail(ver1)	2020, 06, 23, 10:10	アクションドライバープロセス

Number of items 75 Number to display 50 1 / 2

POINT Please refer to the manuals for details of the functions in each menu.

2. Scenario description

2.1 Scenario

Scenarios after OASE installation until action history being obtained.

【Preparation】

Configuring settings
and
Registering rules

1 Set mail driver and create mail template

2 Pay out Token

3 Create decision table

4 Create decision table file ※In Excel

5 Upload decision table file

6 Test request

7 Apply to production environment

【Operation】

Inserting messages
Matching rules and
Executing Actions.

8 Send request via curl command

9 Check the results of action execution

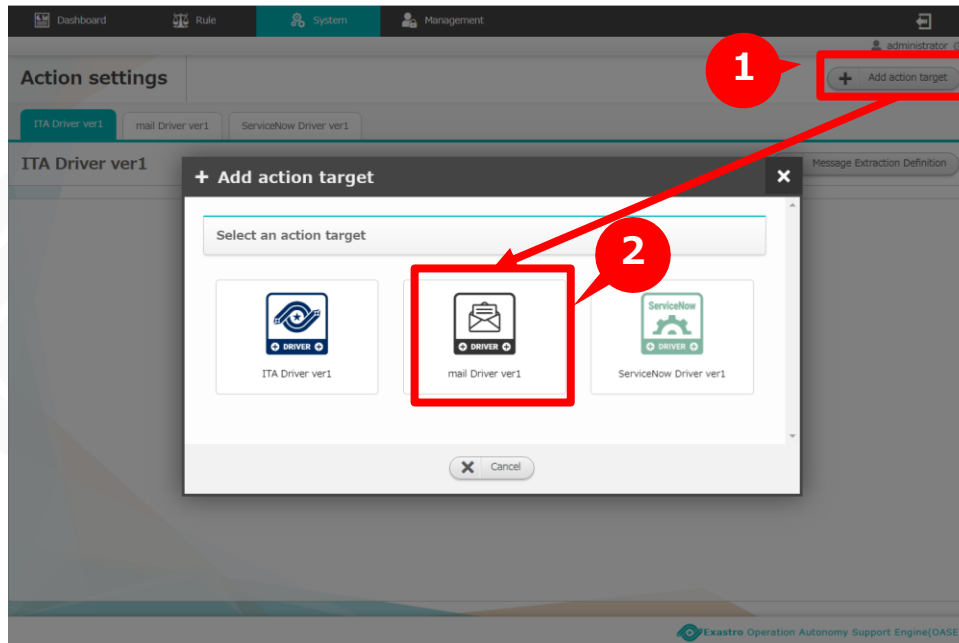
3. Preparation before execution



3.1 Set mail driver and create mail template (1/3)

Add action target

- ① Press the "Add action target" button in the "Action settings" screen.
- ② Select "mail Driver ver1".



Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

Check the result of action execution

The "mail Driver ver1" **will not be displayed** if you don't have the driver installed.

POINT

Please refer to [<Environment construction manual -Driver installation->](#) if the mail driver hasn't been registered.

3.1 Set mail driver and create mail template (2/3)

Set action target

- Enter required information then click the “Save” button.

mail Driver ver1

Name *	oasetest
Protocol	smtp
smtp server *	0.0.0.0
Port *	25
User name	sample@sample.com
Password

Cancel Back Save

Item	Setting value
Name	Enter your desired action target name.
Protocol	Select either “smtp” or “smtp_auth”
Smt Server	Enter private IP or global IP ※The SMTP server has to be prepared in advance
Port	Enter the port number used for communication
User name	Enter the user name as the mail sender.
Password	Enter the password required for authentication

POINT

“Item:name” is used to specify “Execute action to which action target” when creating the latter mentioned decision table file.

POINT

“Item:user name” is displayed as the sender of the mail.

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

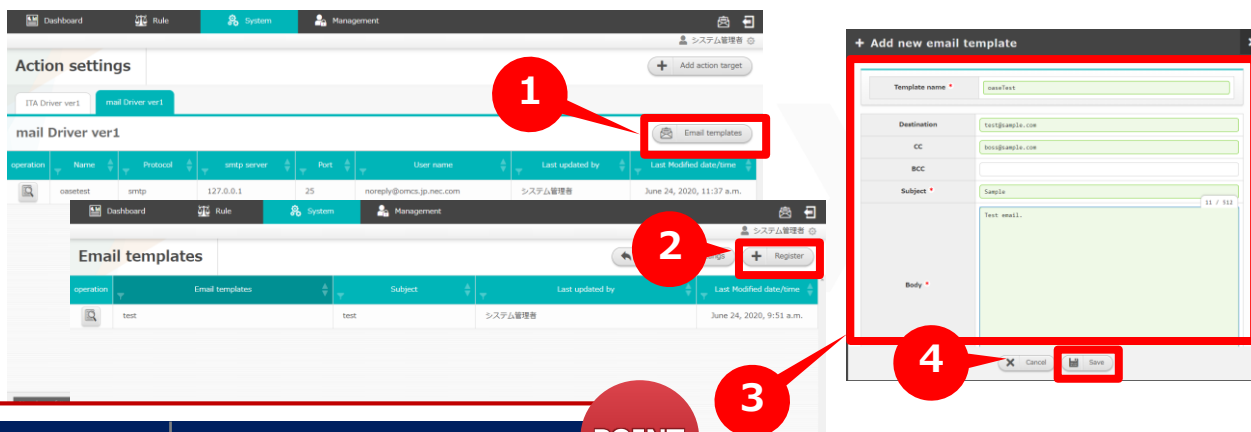
Check the result of action execution

POINT Items with * are required items

3.1 Set mail driver and create mail template (3/3)

Create mail template

- ① Press the "Email Templates" button
- ② Press the "Register" button
- ③ Fill in the required items with the information below
- ④ Press the "Save" button.



Item	Setting value
Template name	Enter any desired template name
Destination	Enter destination mail address
CC	Optional
BCC	Optional
Subject	Enter any desired subject
Body	Enter any desired body context

POINT

The "Template name" is required later when we are creating a decision table file. We will use it to specify what kind of mail template we will use.
By tagging the "Body" with [ACTION_INFO] or [EVENT_INFO], we can receive mail with request information or event information included.

POINT

Items with * are required items

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

Check the result of action execution

3.2 Token Pay-out

Pay out new token.

- ① Press the "Pay out new token" button
- ② Input the information found below
- ③ Press the "Pay out Token" button
- ④ Copy and save the Token displayed in the "Token" screen.
- ⑤ Press the "Close" button.

Pay out new token

Token information

Token name: Test2

Expiration date: Expiration date (No expiration date if nothing is input)

Group permissions

Group name	No Permission	With Permission
administrator	<input type="radio"/>	<input checked="" type="radio"/>

Cancel Pay out Token

② Input the following information

Item	Setting value
Token name	Free name
Group Permissions	System Administrator :With Permission

Token

Paid out the token.

+

Close

POINT

Token needs to be configured for the curl command requests introduced later in this document.

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

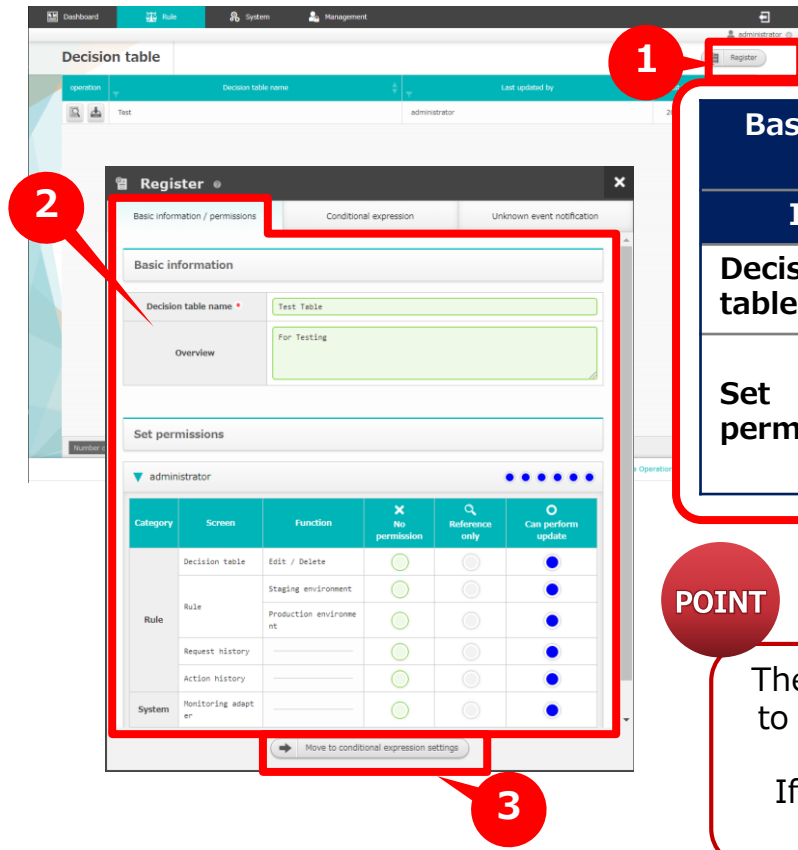
Send request via curl command

Check the result of action execution

3.3 Create Decision table (1/2)

Create Decision table

- ① Press the "Register" button on the decision table screen.
- ② Fill out the required fields in the "Basic Information/ permissions" tab
- ③ Press the "Move to Conditional expression settings" button



Basic information / permissions tab	
Item	Setting value
Decision table name	Free value
Set permissions	System Administrator : "can perform update" on all

POINT

The "Permission settings" needs to have at least one group who can "Perform update". If not, you will not be able to update it.

- Set mail driver and create mail template
- Pay out Token
- Create decision table**
- Create decision table file ※In Excel
- Upload decision table file
- Test request
- Apply to production environment
- Send request via curl command
- Check the result of action execution

POINT

Items with * are required items

3.3 Create Decision table (2/2)

Create Decision table

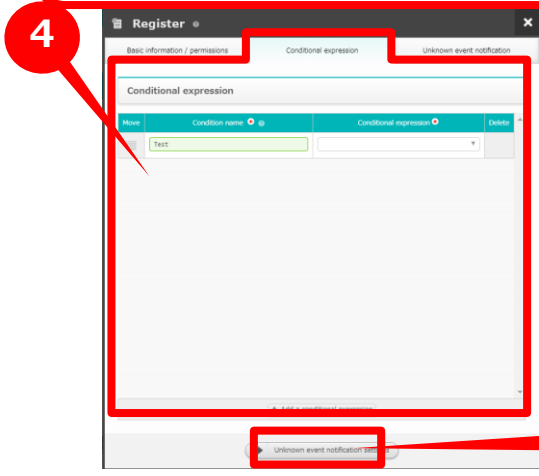
- ④ In the "Conditional Branch" tab in the "New addition" screen, input the necessary information
- ⑤ Press the "Unknown Event Notification settings" button.
- ⑥ In the "Unknown Event Notification" tab in the "New addition screen" input the necessary information
- ⑦ Press the "Save" button.

Item	Setting value
Condition name	Free Character string
Conditional expression	Equal(Number)

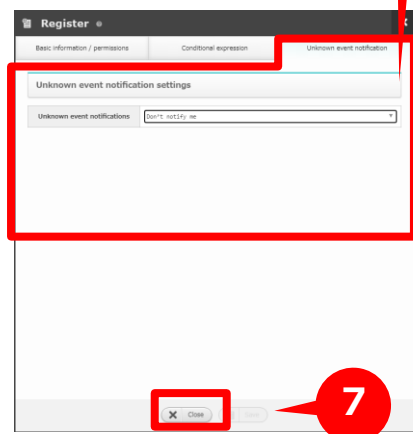
Input the values above

Item	Setting value
Unknown event notifications	Don't notify me

Input the value above



POINT We will set the Decision table file's Conditional part's specific value to the configured Conditional Branch.



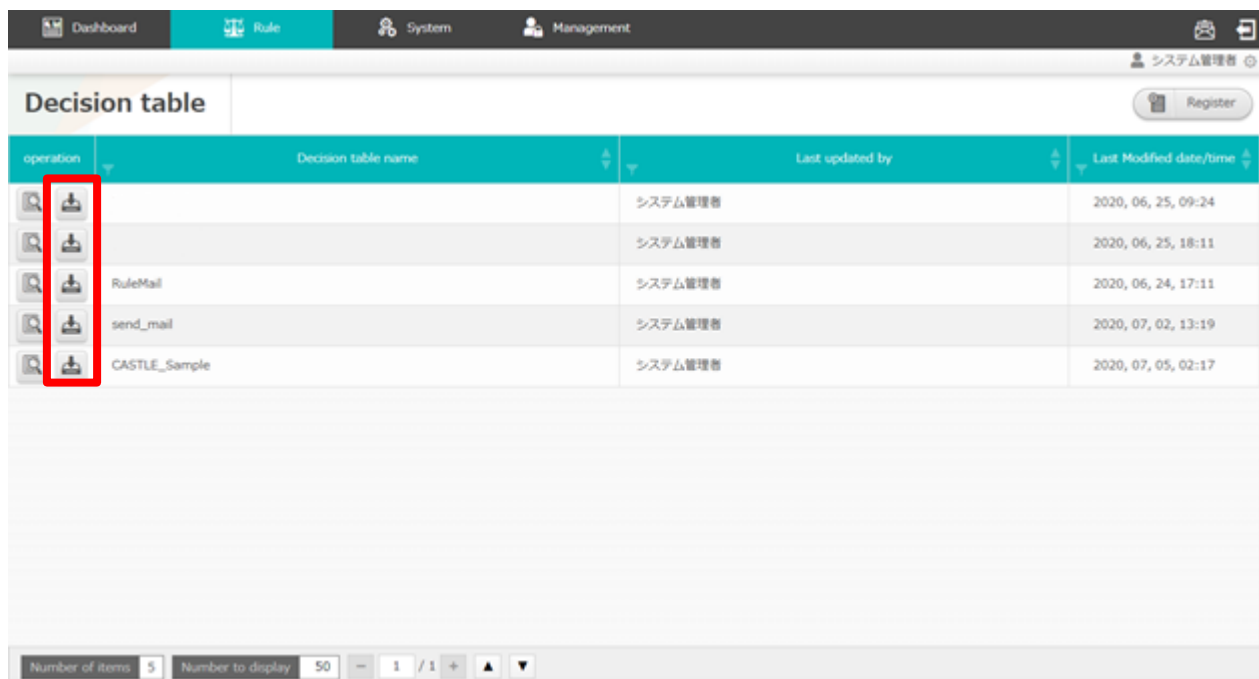
- Set mail driver and create mail template
- Pay out Token
- Create decision table**
- Create decision table file ※In Excel
- Upload decision table file
- Test request
- Apply to production environment
- Send request via curl command
- Check the result of action execution






POINT Items with * are required items

3.3 Create decision table file ※In Excel (1/2)

Download and create decision table file

- Download the decision table created in “3.2 create decision table” by clicking the download button.



operation	Decision table name	Last updated by	Last Modified date/time
		システム管理者	2020, 06, 25, 09:24
		システム管理者	2020, 06, 25, 18:11
	RuleMail	システム管理者	2020, 06, 24, 17:11
	send_mail	システム管理者	2020, 07, 02, 13:19
	CASTLE_Sample	システム管理者	2020, 07, 05, 02:17

POINT

The name of the Decision table file is created automatically. (E.g) idid000000000000.xlsx). This is different from the earlier mentioned "Decision table name". More information regarding each item is written on the next page.

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

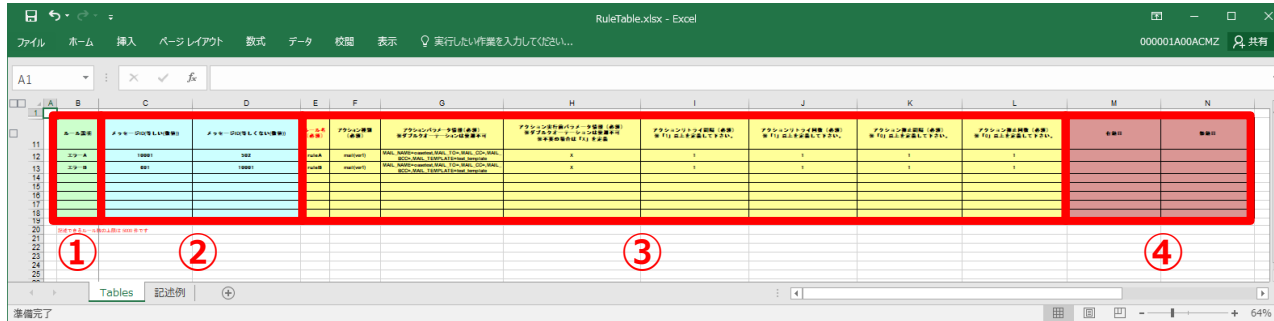
Send request via curl command

Check the result of action execution

3.3 Create decision table file ※In Excel (2/2)

Enter the following content in the decision table file.

※For practical usage example, please refer to "A Appendix Sample1".



①Comment part	Can be empty. Enter description or other desired content.
②Condition part	Enter the condition which matches the rule.
③Action part	<ul style="list-style-type: none">Set the action to be executed for each rule name.Users can set to execute action or send approval mail.Only the drivers set in "Action settings" screen can be entered in "action type". (In this document, "mail Driver ver1" is set.)Please note that the format of "Action parameter information" is different for each action type.
④Action condition part	Can be empty. Users can set the time to enable and disable the rule.

- Set mail driver and create mail template
- Pay out Token
- Create decision table
- Create decision table file ※In Excel**
- Upload decision table file
- Test request
- Apply to production environment
- Send request via curl command
- Check the result of action execution

POINT

For information regarding describing values, please refer to the "Description example" sheet. You can change the file name to whatever you want after updating the decision table file.

3.4 Upload decision table file

Select the decision table file to perform test request.

- ① Click the “select file” button in the “Rule” screen then select the created decision table file.
- ② Click the “Upload” button.
- ③ Press the “OK” button on the Pop-up message.

The screenshot shows the 'Rules applying to Staging environment' screen. The 'Select file' button is highlighted with a red box and a circled '1', and the 'Upload' button is highlighted with a red box and a circled '2'. A red arrow points from the 'Upload' button to a pop-up message that says 'says Are you sure to upload the file?' with 'OK' and 'Cancel' buttons. The 'OK' button is highlighted with a red box.

operation	Decision table name	Rule files	Operational status	Working status	Last updated by
send_mail			Verification completed(Already applied to Production environment)	Staging environment application completed.	システム管理者
RuleMail	RailMailLdix		Verification completed(Already applied to Production environment)	Staging environment application completed.	システム管理者
			Verification completed(Already applied to Production environment)	Staging environment application completed.	システム管理者

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

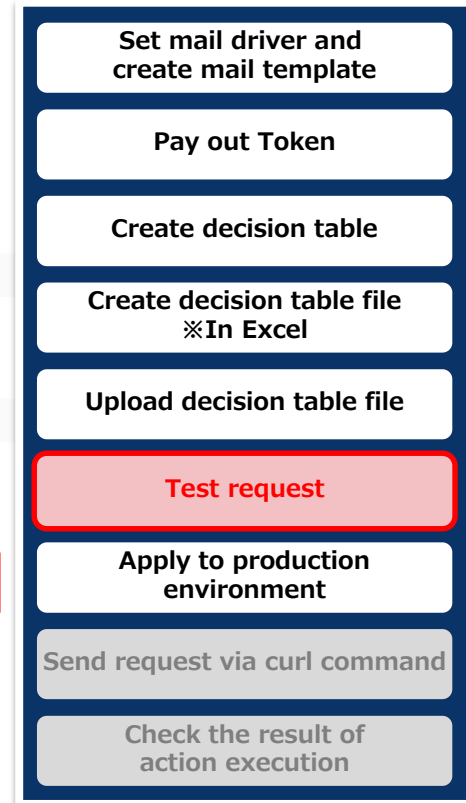
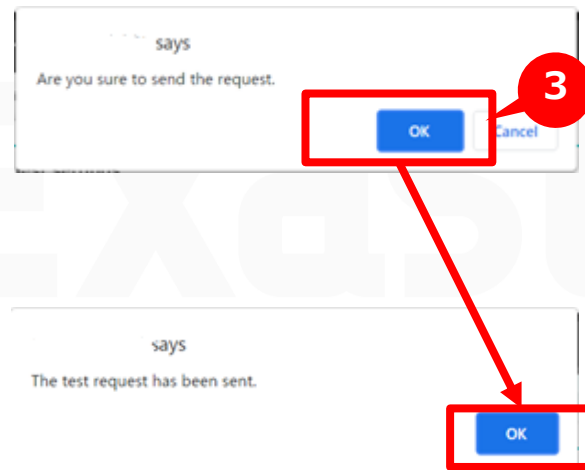
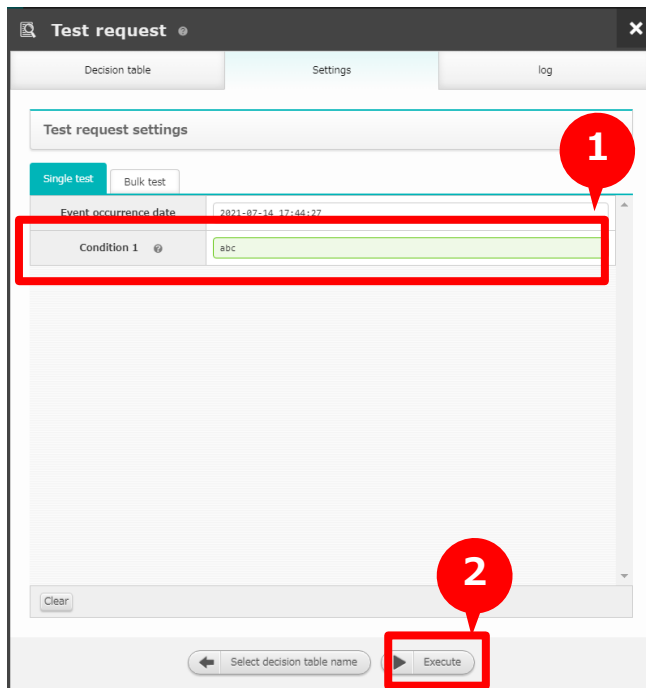
Send request via curl command

Check the result of action execution

3.5 Test request (2/3)

Enter Test value and execute.

- ① In the "Single test" tab in the "Settings" tab, input a value that matches the rule.
- ② Press the "Execute" button.
- ③ Press the "OK" button in the Pop-up message.



POINT

When matched the rules created in [<3.3 Create decision table \(Excel\)>](#), "Successfully processed" and "Matched" will be displayed in execution log. When rule matched, "Operation status" will change to next state.

3.6 Apply to production environment

Make verified rules available in production environment.

● To enable rule in production environment, apply the rule from “Rules applying to Staging environment” to “Rules applying to Production environment”.

- ① When the test request matched the rule correctly, the operation status in staging environment will change to “Verification completed”.
- ② Press the “Apply” button
- ③ Press the “OK” button in the dialogue window.

If the Test request ended successfully, the status will change to “Verification completed”

After the Production environment's Working status has changed to "Production application completed", the decision table can be used in a real environment.

Are you sure to apply to production environment?

operation	Decision table name	Rule files	Application status	Working status	Last updated by	Last Modified date/time
Test 2	Test 2	id00000000002.xlsx	Verification completed	Staging	administrator	
Test 2	Test 2	mail_test.xlsx	Not applied	Abnormal	administrator	
Test 2	Test 2	mail_test.xlsx	Not applied	Abnormal	administrator	

Number of items: 6 Number to display: 50 1 / 1

operation	Decision table name	Rule files	Application status	Working status	Last updated by	Last Modified date/time
Test	Test	id00000000001.xlsx	Not applied to Production environment	Applying to Production environment	administrator	2021, 07, 14, 18:50

POINT The operation status updates automatically every 5 seconds. Please refer to [<Instruction Manual -Rule Screen- \(2\)Rule Screen\(Production\)>](#) for the details of operation status.

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

Check the result of action execution

4. Operation execution



4.1 Send request via curl command (1/2)

Send the message and match the rule applied to production environment with the message

- Open the terminal and execute after rewriting the following commands according to the rules.
- ※ See "A Appendix Sample 1" below for specific usage examples of the curl command.

```
curl -X POST -k "https://<①Host name>/oase_web/event/event/eventsrequest" -H "accept: application/json" -d '{"ruletable":"<②Rule table name>","requesttype":"<③Request type>","eventdatetime":"<④event occurrence datetime>","eventinfo":["<⑤event info>"]}'
```

Item	Setting value
①Host name	Enter valid host name, IP address
②Rule Table name	Enter the rule file name applied to production environment(without .xlsx)
③Request type	Enter "1" since the target is "1:production environment" Example) "requesttype":"1"
④Event occurrence datetime	Enter the time in"yyyy/mm/dd hh:mm:ss" format Example) "eventdatetime":"2020/01/01 01:01:01"
⑤Event information	Specify in list format Example) ["2","foo"]

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file
※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

Check the result of action execution

POINT

Please refer to [<RestAPI Function Instruction Manual>](#) for the details of HTTP request.

4.1 Send request via curl command (2/2)

Check the "request history" screen

- A history of sending a request by specifying parameters with the curl command is added.

Rule matching status	Request type	Decision table name	Request received date/time	Event information
✓	Staging environment	send_mail	Aug. 14, 2020, 3:54 p.m.	{"EVENT_INFO":{"100"}}
?	Staging environment	send_mail	Aug. 14, 2020, 3:27 p.m.	{"EVENT_INFO":{"10001"}}
?	Production environment	send_mail	July 3, 2020, 10:13 a.m.	{"EVENT_INFO":{"101"}}

※Items displayed in the "Request history" screen can be changed.

Configuration menu items:

- Rule matching status
- Request type
- Decision table name
- Request received date/time
- Event information
- Event occurrence date/time
- Trace ID

Number of items: 194 Number to display: 50

- Set mail driver and create mail template
- Pay out Token
- Create decision table
- Create decision table file
※In Excel
- Upload decision table file
- Test request
- Apply to production environment
- Send request via curl command**
- Check the result of action execution

4.2 Check the result of action execution (action history)

Execute action

- When rule is matched, action(mail notification) will be executed as users set in preparation before execution, and users can check the result in “Action history” screen.
- Action will be executed as the specification in the action part of [<3.3 Create decision table file ※In Excel >](#) (mail Driver will sent notification mail as user’s specification)

Mail notification

- Mail with the receiver, title, body set in [<3.1 Set mail driver and create mail template>](#) is sent.

Action history

- Check if the rules are matched and executed are displayed in “Action history” screen.

Status	operation	Decision table name	Rule name	Action type	Last execution date and time	Last executed by
✓	send_mail	name	name	ITA(ver1)	2020, 07, 03, 10:10	アクションドライバープロシージャ
✓	send_mail	name	name	ITA(ver1)	2020, 07, 03, 08:26	アクションドライバープロシージャ
✓	send_mail	name	name	ITA(ver1)	2020, 07, 02, 19:12	アクションドライバープロシージャ
✓	test_mail_table	name	name	ITA(ver1)	2020, 07, 02, 11:53	アクションドライバープロシージャ
✓	ディシジョンテーブル名	name	name	ITA(ver1)	2020, 07, 01, 19:13	アクションドライバープロシージャ

Set mail driver and create mail template

Pay out Token

Create decision table

Create decision table file ※In Excel

Upload decision table file

Test request

Apply to production environment

Send request via curl command

Check the result of action execution

A Appendix

Enter Sample value and Execute OASE

- Case: When OASE receive "MessageID: 10001", execute a action to send a mail with information "Title: 【OASE】 Notification test", "Body:[Request Info][Event Info]"

【Preparation】

① 「Action Settings」 Screen

- Prepare 「mail Driver ver1」

Name	oasetest
Smtп Server	0.0.0.0
User name	sample@example.com
Password	(blank)

(Register other required info)

- Create 「Mail Template」

Template name	test_template
Title	【OASE】 Notification test
Body	[ACTION_INFO] [EVENT_INFO]

② 「Token Pay-out」 screen

- Prepare Token needed when sending request via curl command.

Token name test_token

(Register other required info)

POINT

This information is used in these parts of this manual: [<3.1 Set mail driver and create mail template>](#) and [<3.2 Pay-out token.>](#)

Sample 1 (2/4)

② 「Decision table」 Screen

Create a rule that the "MessageID" will hit

Decision table name	test
Permission Settings (System Administrator)	All 「Editable」
Conditional name	Message ID
Conditional branch	Equal(Number)

POINT

This information is used in these parts of this manual
[<3.3 Create Decision table>](#) and [<3.4 Create Decision table *with Excel>](#).

③ 「Decision table」 File

- Rename and save the "Decision table" file.

File name	mail_test.xlsx
-----------	----------------

Create a rule that "messageID:10001" will hit

※Change the text marked with Red.

MessageID (Equal(Numeric Value))	10001
Action Type	mail(ver1)
Action Parameter Information	MAIL_NAME=oasetest,MAIL_TO=<Mail Address>,MAIL_CC=,MAIL_BCC=,MAIL_TEMPLATE=test_template

(For the other items, use the "example" sheet in the Decision table file as a reference point.)

④ 「Rule (Staging Application Rule)」 Screen

- Upload the created Decision table file.

Select File

mail_test.xlsx

⑤ 「Test Request」 Screen

Test whether when request "MessageID:10001" matches the uploaded decision table or not

Select Decision table name

test

Message ID

10001

POINT

This information is used in these parts of this manual

[<3.5 Uploading Decision table file>](#)

And [<3.6 Test Request>](#)

【Execute Operation】

⑥ Terminal Operation (Linux server)

Send request to the prepared rule via curl command

※Please change the text marked with red.

```
curl -X POST -k "https://<HostName>/oase_web/event/event/eventsrequest" -H "accept: application/json" -d '{"decisiontable":"test","requesttype":"1","eventdatetime":"2020/01/01 01:01:01","eventinfo":["10001"]}' -H "Authorization: Bearer <Access_Token>"
```

⑦ Main Notification

Check if the mail with information on the right is sent.

Title	【OASE Notification test】
Body	[Request Information] Trace ID Decision table name Request user Request server [Event information] Event Time/Date Condition name Message ID



POINT

This information is used in these parts of this manual
[<4.1 Send Request via curl command>](#) and
[<4.2 Check the result of Action execution>](#)



Exastro