



**OX2OX Migration Framework Scheduler Technical
Documentation for
2.0.0**

2021-03-08

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1 General Information

1.1 Delivery Comment

This delivery was requested with following comment:

```
OMF Scheduler 2.0.0 Feature Delivery
```

1.2 Install Package Repository

This delivery is part of a restricted software repository:

```
https://software.open-xchange.com/components/omf-scheduler/stable/2.0.0/RHEL7
https://software.open-xchange.com/components/omf-scheduler/stable/2.0.0/DebianStretch
https://software.open-xchange.com/components/omf-scheduler/stable/2.0.0/DebianBuster
```

1.3 Build Dependencies

This delivery was build and tested with following dependencies:

```
RedHat:RHEL-7,Debian:Stretch,Debian:Buster
```

2 Shipped Packages and Version

2.1 Package open-xchange-omf-orchestrator

OMF Orchestrator CLI to interoperate with the OX2OX Migration Framework.

Version: 2.0.0-5

Type: Other

2.1.1 Installation

Install on nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-omf-orchestrator
```

2.2 Package open-xchange-omf-scheduler

OMF Scheduler OX2OX Migration Framework Scheduler.

Version: 2.0.0-5

Type: Other

2.2.1 Installation

Install on nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-omf-scheduler
```

A Configuration Files

File 1 /opt/open-xchange/omf/scheduler/etc/omf-scheduler.yml

```
1 # https://docs.micronaut.io/latest/guide/config.html#configurationProperties
2 ---
```

```

3 micronaut:
4   # SSL configuration
5   # Required for production environments.
6   # See https://docs.micronaut.io/latest/guide/index.html#https for details.
7   ssl:
8     enabled: true
9     port: 8443
10    key-store:
11      path: file:/opt/open-xchange/omf/certs/keystore.p12
12      type: PKCS12
13      password: secret
14    server:
15      dual-protocol: true
16      port: 8080
17
18    http:
19      services:
20        # The omf-source service is use to collect health status and metrics from the Source
21        # OMF nodes. The HTTP client can be configured (ex: ssl) here by referencing
22        # https://docs.micronaut.io/latest/guide/configurationreference.html#io.micronaut.
23        # http.client.ServiceHttpClientConfiguration
24        # and the subsequent sections related to micronaut.http.services.*
25      omf-source:
26        # Example SSL configuration in case a source uses a private certificate
27        # ssl:
28        #   trust-store:
29        #     path: file:/opt/open-xchange/omf/certs/source.p12
30        #     type: PKCS12
31        #     password: secret
32    application:
33      name: omf-scheduler
34      # Configure security including basic auth: https://micronaut-projects.github.io/
35      # micronaut-security/latest/guide/#basicAuth
36      # Must be set to true or the Source Controller is not secure
37    security:
38      enabled: true
39      # Change the security of the open api views to anonymous so that they can be viewed
40      # without credentials
41    intercept-url-map:
42      - pattern: /swagger/**
43        access:
44          - isAnonymous()
45      - pattern: /swagger-ui/**
46        access:
47          - isAnonymous()
48      - pattern: /rapidoc/**
49        access:
50          - isAnonymous()
51      - pattern: /redoc/**
52        access:
53          - isAnonymous()
54    # https://docs.micronaut.io/latest/guide/index.html#_configuring_caches
55    #caches:
56      #example:
57        #charset: UTF-8
58        #expire-after-access: 1h
59    metrics:
60      enabled: true
61      export:
62        # Creates an endpoint like http://host/prometheus - uses basic auth from
63        # credentials under scheduler.http.admin
64      prometheus:
65        enabled: true
66        step: PT1M
67        descriptions: true
68    router:
69      # Adds api versioning: https://docs.micronaut.io/latest/guide/index.html#apiVersioning
70      versioning:
71        enabled: true
72        parameter:
73          enabled: true
74          names: 'v'

```

```

72     header:
73       enabled: true
74       names: 'X-API-VERSION'
75   # Allows the openapi views to be seen
76   static-resources:
77     swagger:
78       paths: classpath:META-INF/swagger
79       mapping: /swagger/**
80     redoc:
81       paths: classpath:META-INF/swagger/views/redoc
82       mapping: /redoc/**
83     rapidoc:
84       paths: classpath:META-INF/swagger/views/rapidoc
85       mapping: /rapidoc/**
86     swagger-ui:
87       paths: classpath:META-INF/swagger/views/swagger-ui
88       mapping: /swagger-ui/**
89   ---
90   scheduler:
91     id: 'scheduler-0'
92     hostname: ''
93     batch:
94       presync:
95         # Max number of contexts in a batch
96         size: 10
97         # Strategy to use when creating batches.
98         # Current supported strategies:
99         #   - fill-first: create batches up to the batch size then create the next batch
100        #   - fill-equal: create batches of equal size
101        strategy: fill-equal
102      cutover:
103        size: 10
104        strategy: fill-equal
105      preprovisioning:
106        size: 10
107        strategy: fill-equal
108    kafka:
109      queues:
110        batch: "omf-batch"
111        response: "omf-response"
112      resize:
113        batch: true
114        response: true
115    http:
116      admin:
117        # Basic auth creds
118        username: admin
119        password: secret
120        controller:
121          path: /omf/scheduler/admin
122      migration:
123        controller:
124          path: /omf/scheduler/migration
125    metrics:
126      cache:
127        windows.millis: 300000
128        batches.millis: 300000
129    ---
130    jackson:
131      bean-introspection-module: true
132      serialization:
133        indent-output: true
134        writeDatesAsTimestamps: false
135    ---
136    datasources:
137      # Used to persist scheduling data
138      scheduler:
139        # url should use createDatabaseIfNotExist=true if the database will not
140        # already exist: https://dev.mysql.com/doc/connector-j/8.0/en/connector-j-reference-
141        # configuration-properties.html
142        url: jdbc:mysql://localhost:3306/scheduler?createDatabaseIfNotExist=true
143        username: root

```

```

143     password: my-secret-pw
144     driverClassName: org.mariadb.jdbc.Driver
145     dialect: MYSQL
146     maximumPoolSize: 10
147     maxLifetime: 180000
148     # Used to create/drop databases for sources. This is not really the "default" data
      source
149     # but we need to use default because of bug https://github.com/micronaut-projects/
      micronaut-data/issues/598s
150     default:
151       url: jdbc:mysql://localhost:3306/
152       username: root
153       password: my-secret-pw
154       driverClassName: org.mariadb.jdbc.Driver
155       dialect: MYSQL
156       maximumPoolSize: 5
157       maxLifetime: 180000
158 ---
159 endpoints:
160   loggers:
161     enabled: true
162     sensitive: true
163   health:
164     discovery-client:
165       enabled: false
166   liquibase:
167     # fails with missing transition, might be fixed in later Micronaut releases
168     enabled: false
169   info:
170     enabled: true
171     sensitive: true
172     sourceCodeOrigin:
173       enabled: true
174       location: file:/opt/open-xchange/omf/scheduler/share/SourceCodeOrigin.txt
175 ---
176 zookeeper:
177   server: zookeeper:2181
178 ---
179 kafka:
180   bootstrap:
181     servers: kafka-1:9092, kafka-2:9092, kafka-3:9092
182   producers:
183     batch-producer:
184       enable.idempotence: true
185       # This enables transactions for the Batch Producer
186       # The value must be unique per application, but should
187       # not change for the same app after a crash, etc.
188       transactional.id: producer-1
189   #consumers:
190     #response-consumer:
191 ---
192 liquibase:
193   datasources:
194     scheduler:
195       change-log: 'classpath:liquibase/scheduler/liquibase-changelog.xml'
196 ---
197 jooq:
198   datasources:
199     default:
200       sql-dialect: 'MARIADB'
201     scheduler:
202       sql-dialect: 'MARIADB'
203 ---
204 logger:
205   levels:
206     ROOT: INFO
207     com.openxchange: INFO
208     omf: INFO
209     omf.scheduler.admin.AuthenticationProviderUserPassword: WARN
210 ---

```

File 2 /opt/open-xchange/omf/orchestrator/etc/omf-orchestrator.yml

```

1 micronaut:
2   application:
3     name: omf
4   http:
5     services:
6       # The OMF Source HTTP REST API service configuration
7       # The url is dynamic and should not be specified here
8       source:
9         # If some sources don't have valid public certificates (e.g. use
10        # self-signed certificates), then their certificates can be added to
11        # a custom Java trust-store using the keytool command and configured
12        # here.
13        #
14        # Example:
15        # ssl:
16        #   enabled: true
17        #   trust-store:
18        #     path: file:/opt/open-xchange/omf/certs/source.p12
19        #     password: secret
20        #     type: PKCS12
21
22      # The OMF Scheduler Source HTTP REST API service configuration
23      scheduler-admin-source:
24        url: "${omf.scheduler.url}/omf/scheduler/admin/source/"
25
26        # If the scheduler does not have a valid public certificate
27        # (e.g. uses a self-signed certificate), then its certificate can be
28        # configured here.
29        ssl:
30          enabled: true
31          trust-store:
32            path: file:/opt/open-xchange/omf/certs/scheduler.p12
33            password: secret
34            type: PKCS12
35
36      scheduler-admin-target:
37        url: "${omf.scheduler.url}/omf/scheduler/admin/target/"
38
39        # If the scheduler does not have a valid public certificate
40        # (e.g. uses a self-signed certificate), then its certificate can be
41        # configured here.
42        ssl:
43          enabled: true
44          trust-store:
45            path: file:/opt/open-xchange/omf/certs/scheduler.p12
46            password: secret
47            type: PKCS12
48
49      # The OMF Scheduler Migration HTTP REST API service configuration
50      scheduler-migration:
51        url: "${omf.scheduler.url}/omf/scheduler/migration/"
52
53        # If scheduler-admin above has a custom SSL configuration,
54        # then it needs to be repeated here.
55        ssl:
56          enabled: true
57          trust-store:
58            path: file:/opt/open-xchange/omf/certs/scheduler.p12
59            password: secret
60            type: PKCS12
61
62    omf:
63      source:
64        # List source api username and passwords by identifying them
65        # with the name that will be used to create the source entry in OMF.
66        #
67        # This is not required, and the username and password can be entered
68        # for each command when working with the source.
69        #
70        # Example:

```



```
71     # mysource:
72     #   username: admin
73     #   password: secret
74 scheduler:
75     # Credentials for the scheduler
76     # On multi-user systems, specifying the password in a configuration file
77     # with proper file system permissions is preferred to specifying it on
78     # the command line, since the command line is visible to all local users.
79     #
80     # Example:
81     #   username: admin
82     #   password: secret
83
84     # Location of the scheduler. Only the protocol and host name need to be
85     # specified.
86     url: "https://localhost:8443"
87 ui:
88     color: true
89     unicode: true
90     expandIds: false
```