OX2OX Migration Framework Target Technical Documentation for
2.1.0

2021-06-07

Copyright notice

Contents

1 General Information

1.1 Warnings

⚠️ **Warning**

This preview delivery is not for productive usage and not affected by service-level agreements.

⚠️ **Warning**

It is mandatory to restart the **open-xchange** service on all middleware nodes after performing the update.

⚠️ **Warning**

Custom configuration or template files are potentially not updated automatically. After the update, please always check for files with a **.dpkg-new** or **.rpmnew** suffix and merge the changes manually. Configuration file changes are listed in their own respective section below but don't include changes to template files. For details about all the configuration files and templates shipped as part of this delivery, please read the relevant section of each package.

1.2 Delivery Comment

This delivery was requested with following comment:

OMF Target 2.1.0 Preview Delivery 3

1.3 Install Package Repository

This delivery is part of a restricted preview software repository:

https://software.open-xchange.com/components/omf-target/preview/2.1.0/DebianBuster-7.10.4
https://software.open-xchange.com/components/omf-target/preview/2.1.0/DebianBuster-7.10.5
https://software.open-xchange.com/components/omf-target/preview/2.1.0/DebianStretch-7.10.4
https://software.open-xchange.com/components/omf-target/preview/2.1.0/DebianStretch-7.10.5
https://software.open-xchange.com/components/omf-target/preview/2.1.0/RHEL7-7.10.4
https://software.open-xchange.com/components/omf-target/preview/2.1.0/RHEL7-7.10.5

1.4 Build Dependencies

This delivery was build with following dependencies:

```
backend-7.10.5-rev11,plugins-1.6.4-rev3,cloud-plugins-1.11.4-rev4,
backend-7.10.4-rev24,backend-7.10.4-rev23
```

1.5 Notice

ℹ️ **Info**

Some configurations can be changed without restarting the service, please call following command for getting a list of supported settings.

```
/opt/open-xchange/sbin/listreloadables
```

Please use following command to enable capable and changed configurations on a running system.

```
/opt/open-xchange/sbin/reloadconfiguration
```

2 Shipped Packages and Version

2.1 Package open-xchange-omf-target

OMF Migration Target Features OX2OX Migration Framework components for the migration target system.
Version: 2.1.0-3
Type: OX Middleware Plugin
Depends on:

```
open-xchange-admin (<<7.10.6)
open-xchange-admin (>=7.10.4)
open-xchange-cloudplugins (<<1.12.0)
open-xchange-cloudplugins (>=1.11.3)
open-xchange-core (<<7.10.6)
open-xchange-core (>=7.10.4)
open-xchange-grizzly (<<7.10.6)
open-xchange-grizzly (>=7.10.4)
open-xchange-rest (<<7.10.6)
open-xchange-rest (>=7.10.4)
open-xchange-sql-client (<<1.7.0)
open-xchange-sql-client (>=1.6.0)
```

2.1.1 Installation

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

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

2.1.2 Configuration

For details, please see appendix A
/opt/open-xchange/etc/omf-target.properties (page 6)
/opt/open-xchange/etc/sql-client.d/omf-client-pools.yaml (page 7)

2.2 Package open-xchange-omf-worker

OMF Migration Worker Features OX2OX Migration Framework components for Worker nodes.
Version: 2.1.0-3
Type: OX Middleware Plugin
Depends on:

```
open-xchange-admin (<<7.10.6)
open-xchange-admin (>=7.10.4)
open-xchange-admin-reseller (<<7.10.6)
open-xchange-admin-reseller (>=7.10.4)
open-xchange-cloudplugins (<<1.12.0)
open-xchange-cloudplugins (>=1.11.3)
open-xchange-core (<<7.10.6)
open-xchange-core (>=7.10.4)
open-xchange-sql-client (<<1.7.0)
open-xchange-sql-client (>=1.6.0)
```

2.2.1 Installation

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

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

2.2.2 Configuration

A Configuration Files

File 1 /opt/open-xchange/etc/omf-target.properties

```
1   ###
2   ### Target Configuration
3   ###
4
5   # Set the OMF target name of this App Suite instance/cluster.
6   # The value should be defined per brand, where the brand will be matched
7   # against the brand a context will be created in by the dual-provisioning.
8   #
9   # An example for the ficticious brand 'acme':
10  #
11  # com.openexchange.omf.target.provision.target.acme=ox_acme
12  #
13  # where 'ox_acme' must match the corresponding 'name' attribute of a Target
14  # which is configured into the Scheduler using the Orchestrator's
15  # 'omf target create' command.
16  #
17  # One may also define a fallback target name that will be used if no explicit
18  # target name property matches:
19  # com.openexchange.omf.target.provision.target._=ox_brand1
20  #
21  # Note that an empty value or one that one contains whitespaces is treated
22  # as undefined.
23  #
24  # There is no default value, but if no value is defined per-brand or as a
25  # fallback by configuration, the migration database for the respective source
26  # will be queried, first looking to match the brand name against rows in the
27  # 'target' table, and as a last resort, the only 'target' row entry if there is
28  # only one.
29  #
30  # If none of those mechanisms match, the provisioning call will fail.
31  #
32  com.openexchange.omf.target.provision.target._=
33
34  ###
35  ### REST API Credentials
36  ###
37
38  # The login of the user allowed to access the webservices
39  # Parameter is mandatory
40  com.openexchange.omf.target.basic.username=
41
42  # The password of the user allowed to access the webservices
43  # Parameter is mandatory
44  com.openexchange.omf.target.basic.password=
45
46  ###
47  ### HTTPS Client Settings
48  ###
```

```
49
50   # Location of the JKS trust store file that contains the certificates of the source and
51   # the target HTTPS endpoints.
52   # Note that this configuration setting is only applied when the URL to the source and/or
          the
53   # target App Suite endpoints are using the HTTPS protocol.
54   #
55   # The default value is empty, which causes the use of the CA certificates that are bundled
56   # with the Java Runtime Environment.
57   #
58   # Example:
59   # com.openexchange.omf.ssl.truststore.file=/opt/open-xchange/omf/worker-keystore.jks
60   #
61   # Example for using the bundled CA certificates:
62   # com.openexchange.omf.ssl.truststore.file=
63   com.openexchange.omf.ssl.truststore.file=
64
65   # The password to use to open the JKS trust store file.
66   # Only relevant when the configuration parameter above has been set.
67   # Leave empty if no password is necessary (which is the common practice and, hence, the
          default).
68   #
69   # Example with no password being needed to access the trust store file:
70   # com.openexchange.omf.ssl.truststore.password=
71   # Another example where a password is needed to access the trust store file:
72   # com.openexchange.omf.ssl.truststore.password=secret
73   com.openexchange.omf.ssl.truststore.password=
74
75   # The connect timeout for all outbound HTTP/REST requests.
76   #
77   # Example:
78   # com.openexchange.omf.http.connect.timeout=2m
79   #
80   # Defaults to 1m.
81   com.openexchange.omf.http.connect.timeout=1m
82
83   # The read timeout for all outbound HTTP/REST requests.
84   #
85   # Example:
86   # com.openexchange.omf.http.read.timeout=10m
87   #
88   # Defaults to 5m.
89   com.openexchange.omf.http.read.timeout=5m
90
91   # The write timeout for all outbound HTTP/REST requests.
92   #
93   # Example:
94   # com.openexchange.omf.http.write.timeout=10m
95   #
96   # Defaults to 5m.
97   com.openexchange.omf.http.write.timeout=5m
98
99   # The read timeout for slow outbound HTTP/REST requests.
100  #
101  # Example:
102  # com.openexchange.omf.http.slow.read.timeout=20m
103  #
104  # Defaults to 30m.
105  com.openexchange.omf.http.slow.read.timeout=30m
106
107  # The write timeout for slow outbound HTTP/REST requests.
108  #
109  # Example:
110  # com.openexchange.omf.http.slow.write.timeout=12m
111  #
112  # Defaults to 30m.
113  com.openexchange.omf.http.slow.write.timeout=30m
114
115  ###
116  ### Migration Database
117  ###
118
```

```
119  # The OMF target migration db url
120  # Should be in the format jdbc:mysql://mysql.example.com/migration
121  # Default: <empty>
122  com.openexchange.omf.target.sql.migration.url=
123
124  # The OMF target migration db user
125  # Default: <empty>
126  com.openexchange.omf.target.sql.migration.user=
127
128  # The OMF target migration db password
129  # Default: <empty>
130  com.openexchange.omf.target.sql.migration.password=
131
132  ###
133  ### File Migration Settings
134  ###
135
136  # Global Number of requests going to the source system
137  com.openexchange.omf.target.files.migration.concurrency.global.limit=25
138
139  # Number of requests going to the source system that are initiated by a single inbound
          request
140  com.openexchange.omf.target.files.migration.concurrency.single.limit=5
141
142  ###
143  ### Provisioning Configuration
144  ###
145  #
146  # Configuration required for the premigration mappings
147  #
148  #com.openexchange.omf.target.premigration.[reseller].password=
```

File 2   /opt/open-xchange/etc/sql-client.d/omf-client-pools.yaml

```
1   # The top-level key is the identifier of the pool, which can be
2   # any string of text and is being used by the bundles and applications
3   # to access that pool configuration.
4   # Typically, those are fixed or need to be configured in the bundles
5   # that use this library.
6   #
7   # When Java Security Manager support is enabled, files that are referenced
8   # in these configuration files must be in a directory that is already
9   # whitelisted, or in a subdirectory thereof, such as
10  # /opt/open-xchange/etc/
11  #
12  # A good candidate would be something along the lines of
13  # /opt/open-xchange/etc/sql-files/
14  #
15  # Otherwise, the filename or its directory must be put into a new .list
16  # file in the folder
17  # /opt/open-xchange/etc/security/
18  # with e.g. the following content:
19  #
20  # file:/etc/trust.jks
21  #
22  # For a complete list of property values, read https://github.com/brettwooldridge/HikariCP
23  omf-migration:
24    # This property directs HikariCP to use "DriverManager-based" configuration.
25    # We feel that DataSource-based configuration (above) is superior for a variety of
          reasons (see below), but for many deployments there is little significant difference
          .
26    # When using this property with "old" drivers, you may also need to set the
          driverClassName property, but try it first without.
27    # Note that if this property is used, you may still use DataSource properties to
          configure your driver and is in fact recommended over driver parameters specified in
          the URL itself.
28    # Default: none
29    jdbcUrl: ${com.openexchange.omf.target.sql.migration.url}
```

```
30    # This property sets the default authentication username used when obtaining Connections
          from the underlying driver.
31    # Note that for DataSources this works in a very deterministic fashion by calling
          DataSource.getConnection(*username*, password) on the underlying DataSource.
32    # However, for Driver-based configurations, every driver is different.
33    # In the case of Driver-based, HikariCP will use this username property to set a user
          property in the Properties passed to the driver's DriverManager.getConnection(
          jdbcUrl, props) call.
34    # If this is not what you need, skip this method entirely and call addDataSourceProperty
          ("username", ...), for example.
35    # Default: none
36    username: ${com.openexchange.omf.target.sql.migration.user}
37    # sets the password of the connection
38    password: ${com.openexchange.omf.target.sql.migration.password}
39    # This property controls the minimum number of idle connections that HikariCP tries to
          maintain in the pool.
40    # If the idle connections dip below this value and total connections in the pool are
          less than maximumPoolSize, HikariCP will make a best effort to add additional
          connections quickly and efficiently.
41    # However, for maximum performance and responsiveness to spike demands, we recommend not
           setting this value and instead allowing HikariCP to act as a fixed size connection
           pool.
42    # Default: same as maximumPoolSize
43    minimumIdle: 0
44    # This property controls the maximum size that the pool is allowed to reach, including
          both idle and in-use connections.
45    # Basically this value will determine the maximum number of actual connections to the
          database backend. A reasonable value for this is best determined by your execution
          environment.
46    # When the pool reaches this size, and no idle connections are available, calls to
          getConnection() will block for up to connectionTimeout milliseconds before timing
          out.
47    # Default: 10
48    maximumPoolSize: 10
49    # This property controls the maximum number of milliseconds that a client
50    # (that's you) will wait for a connection from the pool. If this time is exceeded
51    # without a connection becoming available, a SQLException will be thrown. Lowest
52    # acceptable connection timeout is 250 ms. Default: 30000 (30 seconds)
53    connectionTimeout: 15000
54    # the dataSourceProperties configures the driver configured above using the jdbcUrl
55    # (some) networking related parameters don't seem to work using mysql (what we are using
          ), see
56    # https://github.com/brettwooldridge/HikariCP#popular-datasource-class-names
57    dataSourceProperties:
58      useUnicode: true
59      characterEncoding: UTF-8
60      useTimezone: true
61      serverTimezone: UTC
62      useSSL: false
63      requireSSL: false
64      verifyServerCertificate: false
65      enabledTLSProtocols: TLSv1,TLSv1.1,TLSv1.2
```

File 3   /opt/open-xchange/etc/omf-target.properties

```
1    ###
2    ### Target Configuration
3    ###
4
5    # Set the OMF target name of this App Suite instance/cluster.
6    # The value should be defined per brand, where the brand will be matched
7    # against the brand a context will be created in by the dual-provisioning.
8    #
9    # An example for the ficticious brand 'acme':
10   #
11   # com.openexchange.omf.target.provision.target.acme=ox_acme
12   #
13   # where 'ox_acme' must match the corresponding 'name' attribute of a Target
```

```
14   # which is configured into the Scheduler using the Orchestrator's
15   # 'omf target create' command.
16   #
17   # One may also define a fallback target name that will be used if no explicit
18   # target name property matches:
19   # com.openexchange.omf.target.provision.target._=ox_brand1
20   #
21   # Note that an empty value or one that one contains whitespaces is treated
22   # as undefined.
23   #
24   # There is no default value, but if no value is defined per-brand or as a
25   # fallback by configuration, the migration database for the respective source
26   # will be queried, first looking to match the brand name against rows in the
27   # 'target' table, and as a last resort, the only 'target' row entry if there is
28   # only one.
29   #
30   # If none of those mechanisms match, the provisioning call will fail.
31   #
32   com.openexchange.omf.target.provision.target._=
33
34   ###
35   ### REST API Credentials
36   ###
37
38   # The login of the user allowed to access the webservices
39   # Parameter is mandatory
40   com.openexchange.omf.target.basic.username=
41
42   # The password of the user allowed to access the webservices
43   # Parameter is mandatory
44   com.openexchange.omf.target.basic.password=
45
46   ###
47   ### HTTPS Client Settings
48   ###
49
50   # Location of the JKS trust store file that contains the certificates of the source and
51   # the target HTTPS endpoints.
52   # Note that this configuration setting is only applied when the URL to the source and/or
         the
53   # target App Suite endpoints are using the HTTPS protocol.
54   #
55   # The default value is empty, which causes the use of the CA certificates that are bundled
56   # with the Java Runtime Environment.
57   #
58   # Example:
59   # com.openexchange.omf.ssl.truststore.file=/opt/open-xchange/omf/worker-keystore.jks
60   #
61   # Example for using the bundled CA certificates:
62   # com.openexchange.omf.ssl.truststore.file=
63   com.openexchange.omf.ssl.truststore.file=
64
65   # The password to use to open the JKS trust store file.
66   # Only relevant when the configuration parameter above has been set.
67   # Leave empty if no password is necessary (which is the common practice and, hence, the
         default).
68   #
69   # Example with no password being needed to access the trust store file:
70   # com.openexchange.omf.ssl.truststore.password=
71   # Another example where a password is needed to access the trust store file:
72   # com.openexchange.omf.ssl.truststore.password=secret
73   com.openexchange.omf.ssl.truststore.password=
74
75   # The connect timeout for all outbound HTTP/REST requests.
76   #
77   # Example:
78   # com.openexchange.omf.http.connect.timeout=2m
79   #
80   # Defaults to 1m.
81   com.openexchange.omf.http.connect.timeout=1m
82
83   # The read timeout for all outbound HTTP/REST requests.
```

```
84   #
85   # Example:
86   # com.openexchange.omf.http.read.timeout=10m
87   #
88   # Defaults to 5m.
89   com.openexchange.omf.http.read.timeout=5m
90
91   # The write timeout for all outbound HTTP/REST requests.
92   #
93   # Example:
94   # com.openexchange.omf.http.write.timeout=10m
95   #
96   # Defaults to 5m.
97   com.openexchange.omf.http.write.timeout=5m
98
99   # The read timeout for slow outbound HTTP/REST requests.
100  #
101  # Example:
102  # com.openexchange.omf.http.slow.read.timeout=20m
103  #
104  # Defaults to 30m.
105  com.openexchange.omf.http.slow.read.timeout=30m
106
107  # The write timeout for slow outbound HTTP/REST requests.
108  #
109  # Example:
110  # com.openexchange.omf.http.slow.write.timeout=12m
111  #
112  # Defaults to 30m.
113  com.openexchange.omf.http.slow.write.timeout=30m
114
115  ###
116  ### Migration Database
117  ###
118
119  # The OMF target migration db url
120  # Should be in the format jdbc:mysql://mysql.example.com/migration
121  # Default: <empty>
122  com.openexchange.omf.target.sql.migration.url=
123
124  # The OMF target migration db user
125  # Default: <empty>
126  com.openexchange.omf.target.sql.migration.user=
127
128  # The OMF target migration db password
129  # Default: <empty>
130  com.openexchange.omf.target.sql.migration.password=
131
132  ###
133  ### File Migration Settings
134  ###
135
136  # Global Number of requests going to the source system
137  com.openexchange.omf.target.files.migration.concurrency.global.limit=25
138
139  # Number of requests going to the source system that are initiated by a single inbound
         request
140  com.openexchange.omf.target.files.migration.concurrency.single.limit=5
141
142  ###
143  ### Provisioning Configuration
144  ###
145  #
146  # Configuration required for the premigration mappings
147  #
148  #com.openexchange.omf.target.premigration.[reseller].password=
```

File 4   /opt/open-xchange/etc/omf-worker.properties

```
1    # The OMF Worker configuration mode.
2    #
3    # Options:
4    #  1. local - uses local configuration files. This is useful for single
5    #     worker node OMF platforms.
6    #  2. distributed - uses the Zookeeper distributed configuration
7    #     to distribute the same configuration among all workers in a group.
8    #     This provider creates a single connection to the Zookeeper worker
9    #     group config node and listens for updates.
10   #
11   # Default: "local"
12   #
13   com.openexchange.omf.worker.config.mode=
14
15   ###
16   ### ZooKeeper Configuration
17   ###
18
19   # The Zookeeper server address that the client will connect to
20   #
21   # This property is required
22   #
23   # Example: localhost:2181
24   #
25   com.openexchange.omf.worker.zookeeper.address=
26
27   # The Zookeeper worker group id. Identifies the group that this worker
28   # belongs to. All worker nodes servicing the same migration should
29   # use the same id. Worker group member nodes will be created here
30   # and the configuration for this group will be used for this worker.
31   #
32   # Default value: default
33   #
34   # Example: customer1
35   #
36   com.openexchange.omf.worker.zookeeper.group.id=
37
38   # The Worker's id. Identifies the worker within a group of workers.
39   # This should be unique within a worker group. This id will be used
40   # as the member id for the worker GroupMember management.
41   #
42   # Default value: the hostname
43   #
44   # Example: worker1
45   #
46   com.openexchange.omf.worker.zookeeper.member.id=
47
48   # The Zookeeper authentication user
49   #
50   # This property is optional
51   #
52   # Example: user
53   #
54   com.openexchange.omf.worker.zookeeper.auth.user=
55
56   # The Zookeeper authentication password
57   #
58   # This property is optional
59   #
60   # Example: password
61   #
62   com.openexchange.omf.worker.zookeeper.auth.password=
63
64   ###
65   ### Sources
66   ###
67
68   # The source(s) that this worker services.
69   # This property tells the worker to collect migration batches for the
70   # specified source name(s) and determines the Kafka topics the worker
71   # listens on, each source name bein prefixed with "omf-batch-" to translate
```

```
72  # into a topic name (e.g. a source named "source1" will cause the worker
73  # to listen on a Kafka topic "omf-batch-source1").
74  #
75  # This property is comma delimited and may contain whitespaces between
76  # entries.
77  # This property is required.
78  # It is applied dynamically upon configuration reloading.
79  # Acceptable values are one or more source names.
80  #
81  # Example: source1, source2
82  #
83  com.openexchange.omf.worker.sources=
84
85  ###
86  ### Migration Database
87  ###
88  #
89  # Note that the following properties (com.openexchange.omf.workr.sql.migration.*)
90  # merely act as placeholders that are used in omf-client-pools.yaml
91  # Further customization of the database connections to the migration databases may
92  # be customized there and if these properties are not used as placeholders,
93  # changing them here won't have any effect.
94  #
95
96  # The JDBC URI to use to connect to the OMF worker migration database.
97  # Should be in the format jdbc:mysql://omf-migration-db/
98  # This property is mandatory and has no default value.
99  com.openexchange.omf.worker.sql.migration.url=
100
101  # The username to use to connect to the OMF worker migration database.
102  # This property is mandatory and has no default value.
103  com.openexchange.omf.worker.sql.migration.user=
104
105  # The password to use to connect to the OMF worker migration database.
106  # This property is mandatory and has no default value.
107  com.openexchange.omf.worker.sql.migration.password=
108
109  ###
110  ### HTTPS Client Settings
111  ###
112
113  # Location of the JKS trust store file that contains the certificates of the source and
114  # the target HTTPS endpoints.
115  # Note that this configuration setting is only applied when the URL to the source and/or
          the
116  # target App Suite endpoints are using the HTTPS protocol.
117  #
118  # The default value is empty, which causes the use of the CA certificates that are bundled
119  # with the Java Runtime Environment.
120  #
121  # Example:
122  # com.openexchange.omf.ssl.truststore.file=/opt/open-xchange/omf/worker-keystore.jks
123  #
124  # Example for using the bundled CA certificates:
125  # com.openexchange.omf.ssl.truststore.file=
126  com.openexchange.omf.ssl.truststore.file=
127
128  # The password to use to open the JKS trust store file.
129  # Only relevant when the configuration parameter above has been set.
130  # Leave empty if no password is necessary (which is the common practice and, hence, the
          default).
131  #
132  # Example with no password being needed to access the trust store file:
133  # com.openexchange.omf.ssl.truststore.password=
134  # Another example where a password is needed to access the trust store file:
135  # com.openexchange.omf.ssl.truststore.password=secret
136  com.openexchange.omf.ssl.truststore.password=
137
138  # The connect timeout for all outbound HTTP/REST requests.
139  #
140  # Example:
141  # com.openexchange.omf.http.connect.timeout=2m
```

```
142   #
143   # Defaults to 1m.
144   com.openexchange.omf.http.connect.timeout=1m
145
146   # The read timeout for all outbound HTTP/REST requests.
147   #
148   # Example:
149   # com.openexchange.omf.http.read.timeout=10m
150   #
151   # Defaults to 5m.
152   com.openexchange.omf.http.read.timeout=5m
153
154   # The write timeout for all outbound HTTP/REST requests.
155   #
156   # Example:
157   # com.openexchange.omf.http.write.timeout=10m
158   #
159   # Defaults to 5m.
160   com.openexchange.omf.http.write.timeout=5m
161
162   # The read timeout for slow outbound HTTP/REST requests.
163   #
164   # Example:
165   # com.openexchange.omf.http.slow.read.timeout=20m
166   #
167   # Defaults to 30m.
168   com.openexchange.omf.http.slow.read.timeout=30m
169
170   # The write timeout for slow outbound HTTP/REST requests.
171   #
172   # Example:
173   # com.openexchange.omf.http.slow.write.timeout=12m
174   #
175   # Defaults to 30m.
176   com.openexchange.omf.http.slow.write.timeout=30m
177
178   ###
179   ### User Quota Settings
180   ###
181
182   # The mode for user quota.
183   # Allowed values are user, context, keep
184   # If user is selected, user quota will be set during premigration of users
185   # If context quota is selected, no user quota will be set and existing user quota will be
          stripped
186   # If keep is selected, the user quota will not be touched and the existing value will be
          used on the target
187   # Default: user
188   com.openexchange.omf.worker.premigration.user.quota.mode=user
189
190   # Setting to control the behaviour when user.quota.mode is set to user.
191   # If set to true, will keep the existing value of the user if present and above 0
192   # if set to false, will use the configured default user.quota.defaultQuota
193   # Default: false
194   com.openexchange.omf.worker.premigration.user.quota.keepIfPresent=false
195
196   # The default Quota for a user, if the user.quota.mode is set to user
197   # Default: 1000L
198   com.openexchange.omf.worker.premigration.user.quota.defaultQuota=1000
199
200   # What should be the value of the LDAP attribute oxDeliveryStatus for pre-provisioned
          users?
201   # Default: ORIGINAL
202   #
203   # This property can be overridden in the Source config with key "deliveryStatus"
204   #
205   com.openexchange.omf.worker.premigration.user.deliveryStatus=ORIGINAL
206
207   # That value can be overridden by target brand. Note that the Source config will
208   # override the target brand override for a Source.
209   # com.openexchange.omf.worker.premigration.user.deliveryStatus.[brandName]=...
210   # e.g.:
```

```
211   # com.openexchange.omf.worker.premigration.user.deliveryStatus.targetBrand1=ORIGINAL
212   # When no per-target-brand value is defined here, the value of
213   # com.openexchange.omf.worker.premigration.user.deliveryStatus
214   # will be used as the default/fallback.
215
216   ###
217   ### Kafka Configuration
218   ###
219   #
220   # OMF Workers are both Kafka Consumers and Producers:
221   # * the OMF Worker uses a Kafka Consumer to poll jobs from Kafka job
222   #   queues ("omf-batch-${sourceName}")
223   # * the OMF Worker uses a Kafka Producer to send job responses to the
224   #   job response queue ("omf-response")
225   #
226   # Use the official Apache Kafka configuration documentation
227   # for all required and optional properties as well as defaults:
228   #  Producer: https://kafka.apache.org/documentation/#producerconfigs
229   #  Consumer: https://kafka.apache.org/documentation/#consumerconfigs
230   #
231   # The following Producer properties are automatically set by the
232   # worker and cannot be used here:
233   #  - key.serializer
234   #  - value.serializer
235   #  - acks
236   #  - retries
237   #  - client.id
238   #  - enable.idempotence
239   #
240   # The following Consumer properties are automatically set by the
241   # worker and cannot be used here:
242   #  - key.deserializer
243   #  - value.deserializer
244   #  - enable.auto.commit
245   #  - max.poll.records
246   #  - auto.commit.interval.ms
247   #  - group.id
248   #  - group.instance.id
249   #  - client.id
250   #
251   # Properties of the OMF Producer are prefixed with "kafka.producer."
252   #  Ex: "kafka.producer.bootstrap.servers"
253   #
254   # Properties of the OMF Consumer are prefixed with "kafka.consumer."
255   #  Ex: "kafka.consumer.bootstrap.servers"
256   #
257   # Properties shared between the producer and consumer can either
258   # be set individually, or using the prefix "kafka.". However, if the
259   # property is set with the producer or consumer prefix, those will
260   # supersede the common property.
261   #  Ex: "kafka.bootstrap.servers"
262   #
263
264   ###
265   ### Cloud-Plugins Settings
266   ###
267
268   # The mode for user quota.
269   # Allowed values are user, remove, keep
270   # If user is selected, user quota will be set during premigration of users to a
          configureable default
271   # If remove quota is selected, no user quota will be set and existing user quota will be
          stripped
272   # If keep is selected, the user quota will not be touched and the existing value will be
          used on the target if present
273   # Default: user
274   com.openexchange.omf.worker.cloudplugins.user.quota.mode=user
275
276   # Setting to control the behaviour when user.quota.mode is set to user.
277   # If set to true, will keep the existing value of the user if present and above 0
278   # if set to false, will use the configured default user.quota.defaultQuota
279   # Default: true
```

```
280   com.openexchange.omf.worker.cloudplugins.user.quota.keepIfPresent=true
281
282   # The default quota for a user, if the user.quota.mode is set to user
283   # Default: 1000
284   com.openexchange.omf.worker.cloudplugins.user.quota.defaultQuota=1000
285
286   # Whether to always set the oxDeliveryStatus attribute to HOLD prior to performing
287   # the cutoff (when set to "true"), or only doing so when the current value of the
288   # oxDeliveryStatus attribute is neither empty, OXAAS or BLOCKED (when set to "false").
289   # When this configuration setting is set to "false", and the oxDeliveryStatus
290   # attribute of at least one of the users of a context is set to OXAAS or empty,
291   # then that context will not be migrated.
292   # Use this to avoid overwriting already migrated contexts, as an additional verification
293   # to the context mapping table.
294   #
295   # Default: false
296   com.openexchange.omf.worker.cloudplugins.status.hold.overwrite=false
297
298   # When the migration of a context fails during cutoff, its oxDeliveryStatus attribute
299   # is set back to its original value when
300   # com.openexchange.omf.worker.logic.keep.deliveryStatus
301   # is set to true in omf-worker-logic.properties.
302   #
303   # This attribute controls whether setting it back to OXAAS or empty should be allowed
304   # (when set to false), or whether its value should be overriden with another value
305   # (when set to true).
306   # When this configuration property is set to true, the value with which oxDeliveryStatus
307   # should be overridden in case of context cutoff migration failure when it's previous
308   # value was empty or OXAAS is defined in
309   # com.openexchange.omf.worker.cloudplugins.status.enforce.failed.migration.with
310   #
311   # Default: true
312   com.openexchange.omf.worker.cloudplugins.status.enforce.failed.migration=true
313
314   # The value with which to override the oxDeliveryStatus after a failed cutoff migration
315   # if its original value was empty or OXAAS and
316   # com.openexchange.omf.worker.cloudplugins.status.enforce.failed.migration
317   # is set to true.
318   #
319   # Default: ORIGINAL
320   com.openexchange.omf.worker.cloudplugins.status.enforce.failed.migration.with=ORIGINAL
321
322   ###
323   ### File Migration Settings
324   ###
325
326   # Whether to parellelize the various file/filestore related operations:
327   # - synchronizing (downloading and uploading) of files
328   # - updating of filestores quotas
329   # - updating of filestore references
330   # - updating of file references
331   #
332   # There are multiple options:
333   #
334   # 1. off: the file related operations are not parellelized and, instead,
335   #    executed sequentially (one context at a time);
336   #    example:
337   #    com.openexchange.omf.worker.files.parallel.threads=off
338   #
339   # 2. auto: the operations are parallelized, with as many threads in parallel
340   #    as there are CPU cores;
341   #    example:
342   #    com.openexchange.omf.worker.files.parallel.threads=auto
343   #
344   # 3. a number: the operations are parallelized, with as many thrads in
345   #    parallel as specified with that number
346   #    example:
347   #    com.openexchange.omf.worker.files.parallel.threads=4
348   #
349   # Optional. Default: auto
350   com.openexchange.omf.worker.files.parallel.threads=auto
351
```

```
352  # Wether to check for missing files on source in the cutover phase
353  #
354  # When enabled, an error will be logged for missing files
355  #
356  # Note that the migration would be stopped anyway on a missing file on the
357  # source because the file could not be migrated as part of the normal preSync
358  # or cutover.
359  com.openexchange.omf.worker.files.check.source.missingFiles=false
360
361  # Wether to check for missing files on the target in the cutover phase
362  #
363  # When enabled, an error will be logged for missing files. The check
364  # will compare all fileRefs in the database with the configured fileStorage
365  # and if any of the fileRefs is missing, an exception is thrown.
366  com.openexchange.omf.worker.files.check.target.missingFiles=false
367
368  ###
369  ### Worker Behavior Configuration
370  ###
371
372  # Whether to update the oxDeliveryStatus attribute in oxCloudUser
373  # entities in the target LDAP (true) or not (false).
374  # Optional, defaults to true.
375  com.openexchange.omf.worker.logic.update.deliveryStatus=true
376
377  # When updating the oxDeliveryStatus is enabled (*), this flag configures
378  # whether, in case of the failure of the migration of a context, the
379  # oxDeliveryStatus attribute of all the users within that context should
380  # be set to:
381  # - true = their value prior to the migration (true),
382  # - false = the value 'ORIGINAL' (**)
383  #
384  # (*) see com.openexchange.omf.worker.logic.update.deliveryStatus above
385  # (**) or the value defined in com.openexchange.omf.worker.logic.failed.deliveryStatus
386  #
387  # Optional, defaults to false
388  com.openexchange.omf.worker.logic.keep.deliveryStatus=false
389
390  # When overwriting oxDeliveryStatus with a fixed value in case of a failed
391  # cutover of a context (*), this configuration setting indicates whether
392  # that oxDeliveryStatus value should be 'ORIGINAL' or another value.
393  #
394  # Note that if the value is different from ORIGINAL, OXAAS, HOLD
395  # or BLOCKED, it requires the use of a Cloud-Plugins version that supports
396  # arbitrary oxDeliveryStatus values -- see CP-259
397  #
398  # (*) com.openexchange.omf.worker.logic.keep.deliveryStatus=true
399  #
400  # Optional, defaults to ORIGINAL
401  com.openexchange.omf.worker.logic.failed.deliveryStatus=ORIGINAL
402
403  # Default maximum duration for a Batch, if it doesn't have a deadline
404  # attached to its Window.
405  # Set it to the value "none" to avoid applying a maximum duration (if there
406  # is no Window deadline), like so:
407  # com.openexchange.omf.worker.batch.default.max.duration=none
408  # Optional, defaults to 1h.
409  com.openexchange.omf.worker.batch.default.max.duration=1h
410
411  # Whether to unlock successfully migrated contexts on the source.
412  # Optional, defaults to false
413  com.openexchange.omf.worker.logic.unlock.successful.source=false
414
415  # Maximum amount of times we attempt to unlock the source contexts after
416  # a failed delta-sync Batch migration.
417  # Optional, defaults to 3
418  com.openexchange.omf.worker.logic.max.unlock.attempts=3
419
420  # Minimum amount of contexts that must survive a step in a batch
421  # disabled if set to 0
422  # Default: 1
423  com.openexchange.omf.worker.logic.keep.going.min=1
```

```
424
425   # Percentage of contexts that must succeed a step in a batch
426   # disabled if set to 0
427   # Must be between 0 and 100
428   # Default: 50
429   com.openexchange.omf.worker.logic.keep.going.percentage=50
430
431   ###
432   ### Mail Migration Properties
433   ###
434   # These contain several "source" based properties which
435   # are used by OMF to determine how to migrate a user based on
436   # the settings for the "source" that they belong to.
437   # The "source" is referred to as both the OMF "source" and the mail
438   # "source" which may be different. Some OMF source based properties
439   # are dependent on the DMF "brand". For instance, the mail source host
440   # default property value must be a source host that is configured in
441   # DMF for the "brand" that the source matches.
442
443   # The interval in ms that OMF will poll the DMF
444   # API to check the user migration status during
445   # presync
446   #
447   # This configuration property is optional.
448   #
449   # Default: 30000
450   #
451   # Example:
452   # com.openexchange.omf.worker.mail.presync.poll.interval.ms=30000
453   com.openexchange.omf.worker.mail.presync.poll.interval.ms=
454
455   # The interval in ms that OMF will poll the DMF
456   # API to check the user migration status during
457   # cutover
458   #
459   # This configuration property is optional.
460   #
461   # Default: 2000
462   #
463   # Example:
464   # com.openexchange.omf.worker.mail.cutover.poll.interval.ms=2000
465   com.openexchange.omf.worker.mail.cutover.poll.interval.ms=
466
467   # Set the default source mail host per OMF source
468   #
469   # Use property names that start with
470   # "com.openexchange.omf.worker.mail.source.host."
471   # followed by the OMF source name.
472   #
473   # A source mail host is not required for any OMF source,
474   # however, if there is not a default and a host
475   # is not provided with the Appsuite source metadata then the
476   # migration will fail
477   #
478   # Example:
479   # com.openexchange.omf.worker.mail.source.host.source1=imap.host.name
480   # com.openexchange.omf.worker.mail.source.host.source2=imap.host.name
481
482   # Set the default source mail host port per OMF source
483   #
484   # Use property names that start with
485   # "com.openexchange.omf.worker.mail.source.port."
486   # followed by the OMF source name.
487   #
488   # A source mail host port is not required for any OMF source,
489   # and is only used to forward to DMF. It is possible that DMF
490   # is configured to not make use of the source host port option
491   # which would make this property useless for that OMF source.
492   #
493   # Example:
494   # com.openexchange.omf.worker.mail.source.port.source1=143
495   # com.openexchange.omf.worker.mail.source.port.source2=993
```

```
496
497  # Set the default source mail password per OMF source
498  #
499  # Use property names that start with
500  # "com.openexchange.omf.worker.mail.source.password."
501  # followed by the OMF source name.
502  #
503  # A source mail password is not required for any OMF source,
504  # and is only used to forward to DMF. It is possible that DMF
505  # is configured to not make use of the source password option
506  # which would make this property useless for that OMF source.
507  #
508  # Example:
509  # com.openexchange.omf.worker.mail.source.password.source1=secret
510  # com.openexchange.omf.worker.mail.source.password.source2=secret2
511
512  # Set the default imapc ssl option per OMF source
513  #
514  # Use property names that start with
515  # "com.openexchange.omf.worker.mail.imapc.ssl."
516  # followed by the OMF source name.
517  #
518  # There are 3 options:
519  #   1. "no"
520  #   2. "imaps"
521  #   3. "starttls"
522  #
523  # An imapc ssl option is not required for any OMF source,
524  # and is only used to forward to DMF. It is possible that DMF
525  # is configured to not make use of the imapc ssl option
526  # which would make this property useless for that OMF source.
527  #
528  # Example:
529  # com.openexchange.omf.worker.mail.imapc.ssl.source1=no
530  # com.openexchange.omf.worker.mail.imapc.ssl.source2=imaps
531
532  ###
533  ### DMF Client Properties
534  ###
535
536  # OMF talks to DMF via an apikey that is linked to a DMF "brand".
537  # An OMF "source" is one-one with a DMF "brand". This means that
538  # the apikey set for an OMF source should match up with the desired
539  # DMF brand.
540
541  # The DMF HTTP API URL. This is the URL without the API version.
542  # So if the versioned API URL is: https://dmf.host/dmf/v1
543  # then the URL to provide is "https://dmf.host/dmf"
544  #
545  # This configuration property is required.
546  #
547  com.openexchange.omf.worker.mail.dmf.url=
548
549  # Set the API key per source
550  #
551  # Use property names that start with
552  # "com.openexchange.omf.worker.mail.dmf.apikey."
553  # followed by the source name.
554  #
555  # An API key is required for any source that will be
556  # serviced by this OMF instance.
557  #
558  # Example:
559  # com.openexchange.omf.worker.mail.dmf.apikey.source1=XYZ
560  # com.openexchange.omf.worker.mail.dmf.apikey.source2=ABC
561  #
562
563  # When the target brand is configured as being dynamic ('*'), then the
564  # target brand must be provided by the source metadata.
565  # The following configuration properties can be used to map the brand
566  # names in the source metadata to different values before being used as
567  # the target brand name for preprovisioning.
```

```
568   #
569   # Syntax:
570   # com.openexchange.omf.worker.premigration.brand.map.<from>=<to>
571   #
572   # Example:
573   # com.openexchange.omf.worker.premigration.brand.map.brand1=reseller
574   #
575   # These properties are optional and the default behavior is to use the
576   # brand name in the source metadata as-is.
577   # com.openexchange.omf.worker.premigration.brand.map.<from>=<to>
578
579   # A default target brand to use when the target brand is configured as being
580   # dynamic ('*') and no target brand is specified in the source metadata.
581   #
582   # The property is optional and when not defined or blank, the brand must
583   # be part of the source metadata or the preprovisioning will fail.
584   #
585   com.openexchange.omf.worker.premigration.brand.default=
586
587   # Whether to parellelize the various premigration related operations:
588   # - creation of context
589   # - verification of contexts on the target
590   #
591   # There are multiple options:
592   #
593   # 1. off: the file related operations are not parellelized and, instead,
594   #    executed sequentially (one context at a time);
595   #    example:
596   #    com.openexchange.omf.worker.premigration.parallel.threads=off
597   #
598   # 2. auto: the operations are parallelized, with as many threads in parallel
599   #    as there are CPU cores;
600   #    example:
601   #    com.openexchange.omf.worker.premigration.threads=auto
602   #
603   # 3. a number: the operations are parallelized, with as many thrads in
604   #    parallel as specified with that number
605   #    example:
606   #    com.openexchange.omf.worker.premigration.threads=4
607   #
608   # Optional. Default: auto
609   com.openexchange.omf.worker.premigration.parallel.threads=auto
```

File 5   /opt/open-xchange/etc/omf-feature-mapping.yml

```
1    # Permission and Configuration Cascade migration rules.
2    #
3    # defaultMappings are mandatory but may be empty.
4    # Optionally, per-target mappings or per-targetBrandName can be defined.
5    # Those inherit from the default mappings.
6    #
7    version: 1
8    defaultMappings:
9      # default rules apply to all targets and brands
10     permissionMappings:
11       # applied to each user:
12       # - permissionname: action
13       #    action := on/off
14       #    off := turn it off whether it was set or not
15       #    on := turn it on whether it was set or not
16       # - if not specified, keep as is.
17       #
18       # - all valid permission names:
19       #    webmail: on/off
20       #    calendar: on/off
21       #    contacts: on/off
22       #    tasks: on/off
23       #    infostore: on/off
```

```
24      #   projects: on/off
25      #   forum: on/off
26      #   pinboard_write_access: on/off
27      #   webdav_xml: on/off
28      #   webdav: on/off
29      #   ical: on/off
30      #   vcard: on/off
31      #   rss_bookmarks: on/off
32      #   rss_portal: on/off
33      #   mobility: on/off
34      #   edit_public_folders: on/off
35      #   read_create_shared_folders: on/off
36      #   delegate_tasks: on/off
37      #   edit_group: on/off
38      #   edit_resource: on/off
39      #   edit_password: on/off
40      #   collect_email_addresses: on/off
41      #   multiple_mail_accounts: on/off
42      #   subscription: on/off
43      #   publication: on/off
44      #   active_sync: on/off
45      #   usm: on/off
46      #   olox20: on/off
47      #   denied_portal: on/off
48      #   caldav: on/off
49      #   carddav: on/off
50   configCascadeMappings:
51      # applied to each context and user:
52      # - redList and greenList are mutually exclusive; use one or the other, but not both
53      # redList:
54      #   # drop the capabilties that are mentioned below:
55      #   - config/com.openexchange.subscribe.crawler.yahoocom
56      #   - config/com.openexchange.subscribe.socialplugin.yahoo
57      #   - config/com.openexchange.subscribe.socialplugin.msn
58
59  # Some more mappings.
60  # Those inherit the mappings from the defaultMappings.
61  # NOTE: however, since red- and greenLists are mutually exclusive and thus cannot be used
62  #       at the same time, for inheritance that means that greenList items replace all
        redList
63  #       items from the parent mappings and vice-versa
64  #
65  # anotherMappings:
66  #   appliesToTargetName:
67  #     - target1
68  #     - target2
69  #   permissionMappings:
70  #     calendar: on
71  #   configCascadeMappings:
72  #     # the greenList defined here overrides and suppresses the redList
73  #     # that is defined in defaultMappings
74  #     greenList:
75  #       # only migrate settings listed below
76  #       - config/com.openexchange.cloudplugins.unifiedquota
77  #       - config/com.openexchange.capability.drive
78  #
79  # # targetBrandName rules inherit from default mappings as well
80  # evenMoreMappings:
81  #   appliesToTargetBrandName:
82  #     - targetBrand1
83  #     - targetBrand2
84  #   permissionMappings:
85  #     edit_resource: on
86  #   configCascadeMappings:
87  #     # the greenList defined here overrides and suppresses the redList
88  #     # that is defined in defaultMappings
89  #     greenList:
90  #       # only migrate settings listed below
91  #       - config/com.openexchange.cloudplugins.foo
92  #
93  # # some more targetBrandName rules
94  # yetAnotherMappings:
```

```
95    #   appliesToTargetBrandName:
96    #     - targetBrand3
97    #     - targetBrand4
98    #   permissionMappings:
99    #     edit_group: off
100   #   configCascadeMappings:
101   #     # Augments the redList defined in defaultMappings with additional
102   #     # redlisted capabilities:
103   #     redList:
104   #       - config/com.openexchange.subscribe.socialplugin.google
105   #
106   # # target- and brandname rules can be combined as well
107   # targetAndBrandCombined:
108   #   appliesToTargetBrandName:
109   #     - targetBrand10
110   #     - targetBrand20
111   #   appliesToTargetName:
112   #     - target10
113   #     - target20
114   #   permissionMappings:
115   #     multiple_mail_accounts: on
116   #   configCascadeMappings:
117   #     # Augments the redList defined in defaultMappings with additional
118   #     # redlisted capabilities:
119   #     redList:
120   #       - config/com.openexchange.subscribe.socialplugin.google
121   #
122   # noPermission:
123   #   appliesToTargetBrandName:
124   #     - targetBrand10
125   #     - targetBrand20
126   #   appliesToTargetName:
127   #     - target10
128   #     - target20
129   #   configCascadeMappings:
130   #     # Augments the redList defined in defaultMappings with additional
131   #     # redlisted capabilities:
132   #     redList:
133   #       - config/com.openexchange.subscribe.socialplugin.google
134   #
135   # noConfig:
136   #   appliesToTargetBrandName:
137   #     - targetBrand10
138   #     - targetBrand20
139   #   appliesToTargetName:
140   #     - target10
141   #     - target20
142   #   permissionMappings:
143   #     multiple_mail_accounts: on
```

File 6   /opt/open-xchange/etc/sql-client.d/omf-client-pools.yaml

```
1    # The top-level key is the identifier of the pool, which can be
2    # any string of text and is being used by the bundles and applications
3    # to access that pool configuration.
4    # Typically, those are fixed or need to be configured in the bundles
5    # that use this library.
6    #
7    # When Java Security Manager support is enabled, files that are referenced
8    # in these configuration files must be in a directory that is already
9    # whitelisted, or in a subdirectory thereof, such as
10   # /opt/open-xchange/etc/
11   #
12   # A good candidate would be something along the lines of
13   # /opt/open-xchange/etc/sql-files/
14   #
15   # Otherwise, the filename or its directory must be put into a new .list
16   # file in the folder
```

```
17  # /opt/open-xchange/etc/security/
18  # with e.g. the following content:
19  #
20  # file:/etc/trust.jks
21  #
22  # For a complete list of property values, read https://github.com/brettwooldridge/HikariCP
23  omf-migration:
24    # This property directs HikariCP to use "DriverManager-based" configuration.
25    # We feel that DataSource-based configuration (above) is superior for a variety of
          reasons (see below), but for many deployments there is little significant difference
          .
26    # When using this property with "old" drivers, you may also need to set the
          driverClassName property, but try it first without.
27    # Note that if this property is used, you may still use DataSource properties to
          configure your driver and is in fact recommended over driver parameters specified in
           the URL itself.
28    # Default: none
29    jdbcUrl: ${com.openexchange.omf.worker.sql.migration.url}
30    # This property sets the default authentication username used when obtaining Connections
           from the underlying driver.
31    # Note that for DataSources this works in a very deterministic fashion by calling
          DataSource.getConnection(*username*, password) on the underlying DataSource.
32    # However, for Driver-based configurations, every driver is different.
33    # In the case of Driver-based, HikariCP will use this username property to set a user
          property in the Properties passed to the driver's DriverManager.getConnection(
          jdbcUrl, props) call.
34    # If this is not what you need, skip this method entirely and call addDataSourceProperty
          ("username", ...), for example.
35    # Default: none
36    username: ${com.openexchange.omf.worker.sql.migration.user}
37    # sets the password of the connection
38    password: ${com.openexchange.omf.worker.sql.migration.password}
39    # This property controls the minimum number of idle connections that HikariCP tries to
          maintain in the pool.
40    # If the idle connections dip below this value and total connections in the pool are
          less than maximumPoolSize, HikariCP will make a best effort to add additional
          connections quickly and efficiently.
41    # However, for maximum performance and responsiveness to spike demands, we recommend not
           setting this value and instead allowing HikariCP to act as a fixed size connection
          pool.
42    # Default: same as maximumPoolSize
43    minimumIdle: 0
44    # This property controls the maximum size that the pool is allowed to reach, including
          both idle and in-use connections.
45    # Basically this value will determine the maximum number of actual connections to the
          database backend. A reasonable value for this is best determined by your execution
          environment.
46    # When the pool reaches this size, and no idle connections are available, calls to
          getConnection() will block for up to connectionTimeout milliseconds before timing
          out.
47    # Default: 10
48    maximumPoolSize: 10
49    # This property controls the maximum number of milliseconds that a client
50    # (that's you) will wait for a connection from the pool. If this time is exceeded
51    # without a connection becoming available, a SQLException will be thrown. Lowest
52    # acceptable connection timeout is 250 ms. Default: 30000 (30 seconds)
53    connectionTimeout: 15000
54    # the dataSourceProperties configures the driver configured above using the jdbcUrl
55    # (some) networking related parameters don't seem to work using mysql (what we are using
          ), see
56    # https://github.com/brettwooldridge/HikariCP#popular-datasource-class-names
57    dataSourceProperties:
58      useUnicode: true
59      characterEncoding: UTF-8
60      useTimezone: true
61      serverTimezone: UTC
62      useSSL: false
63      requireSSL: false
64      verifyServerCertificate: false
65      enabledTLSProtocols: TLSv1,TLSv1.1,TLSv1.2
```