

## Datasource and Configuration Issues

Alex Clemons - 2023-03-02 - Comments (0) - Autoform DM General Information

# Autoform DM

If there is an issue with the database connection configuration in DM or a problem connecting to the configured database, then Autoform DM will fail on startup with an exception ending in the line:

*Caused by: org.hibernate.HibernateException: Access to DialectResolutionInfo cannot be null when 'hibernate.dialect' not set.*

The database configuration itself can be found in **standalone.xml** and looks like this:

Standalone.xml

```
<datasource jndi-name="java:/PDM" pool-name="PDM" enabled="true" use-  
java-context="true" use-ccm="true">  
  <connection-  
url>jdbc:jtds:sqlserver://localhost:1433/MYDB</connection-url>  
  <driver>jtds</driver>  
  <pool>  
    <min-pool-size>10</min-pool-size>  
    <max-pool-size>20</max-pool-size>  
    <prefill>>false</prefill>  
    <use-strict-min>>false</use-strict-min>  
    <flush-strategy>FailingConnectionOnly</flush-strategy>  
  </pool>  
  <security>  
    <user-name>pdm</user-name>  
    <password>pdm</password>  
  </security>  
  <validation>  
    <check-valid-connection-sql>SELECT 1</check-valid-connection-  
sql>
```

```
<validate-on-match>true</validate-on-match>
</validation>
</datasource>
```

The **connection-url** and **security** sections are the important lines as they hold the database location and authentication.

This article documents the failure behaviour in order to help diagnose the actual underlying problem.

### General Symptoms

A database configuration error will cause DM to fail to deploy correctly at startup and cause large amounts of error logging. Look for the following symptoms:

- DM fails to deploy on startup - navigating to the web frontend results in a **404 - Not Found** error message.
- Checking the server logs shows a large number of log lines such as the following:

Server logs

```
service
jboss.deployment.subunit."pdm_app_module.ear"."application-service-8.0
.0-
SNAPSHOT.jar".component.ClientApplicationServiceEJB.VIEW."com.efstech
.pdm.application-service.ejb.se
ssion.ClientApplicationService".LOCAL (missing) dependents: [service
jboss.deployment.subunit."pdm_app_module.ear"."application-service-8.0
.0-SNAPSHOT.jar".component.ClientApplicationSer
viceEJB.START]
```

- Just before the deployment failure errors (as above) there is a stacktrace ending with the line:

Caused by: org.hibernate.HibernateException: Access to DialectResolutionInfo cannot be null when 'hibernate.dialect' not set

### Identifying the root cause

Should the above symptoms be apparent, then first search for a log line containing the text:

*IJ000604: Throwable while attempting to get a new connection: null:*

*javax.resource.ResourceException: IJ031084: Unable to create connection*

### **SQL Server**

If the following error logs are displayed, there is usually a cause and a way to fix the error, as follows

Error logs

...

Caused by: java.sql.SQLException: Unknown server host name '<hostname>'

...

Caused by: java.net.UnknownHostException: <hostname>

### **Cause:**

Unable to resolve the hostname of the database server -

### **Fix:**

Check the hostname is correct and verify that you can ping it and resolve its DNS entry without issue. Depending on the network setup you may need the **FQDN** (fully qualified domain name), i.e. databasehost.some.domain.com rather than just databasehost.

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Error logs

...

Caused by: java.sql.SQLException: Network error IOException: Connection refused

...

Caused by: java.net.ConnectException: Connection refused

### **Cause:**

Unable to connect to database server - most likely an issue with the port.

### **Fix:**

Verify the Database server is running and available on the configured port.

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Error logs

...

Caused by: java.sql.SQLException: Cannot open database "AFPDM8DPP" requested by the login. The login failed.

**Cause:**

The connection to the database server was successful and the login credentials were valid, but the user was not able to access the configured database.

**Fix:**

Check the database name is correct and that the user has the correct permissions to be able to access and read the tables.

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Error logs

...

Caused by: java.sql.SQLException: Login failed for user 'pdm'.

**Cause:**

The specified credentials for connecting to the database server are invalid.

**Fix:**

Verify the username and password are correct and the user has the correct permissions to be able to connect to the database server and read the configured database.

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**Oracle**

Error logs

...

Caused by: java.sql.SQLRecoverableException: IO Error: Unknown host specified

...

Caused by: oracle.net.ns.NetException: Unknown host specified

**Cause:**

Unable to resolve the hostname of the database server.

**Fix:**

Check the hostname is correct and verify that you can ping it and resolve its DNS entry without issue. Depending on the network setup you may need the **FQDN** (fully qualified domain name), i.e. `databasehost.some.domain.com` rather than just `databasehost`.

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Error logs

...

Caused by: `java.sql.SQLRecoverableException: IO Error: The Network Adapter could not establish the connection`

...

Caused by: `oracle.net.ns.NetException: The Network Adapter could not establish the connection`

...

Caused by: `java.net.ConnectException: Connection refused`

**Cause:**

Unable to connect to database server - most likely an issue with the port.

**Fix:**

Verify the Database server is running and available on the configured port.

---

Error logs:

...

Caused by: `java.sql.SQLException: Listener refused the connection with the following error:`

`ORA-12514, TNS:listener does not currently know of service requested in connect descriptor`

...

Caused by: `oracle.net.ns.NetException: Listener refused the connection with the following error:`

`ORA-12514, TNS:listener does not currently know of service requested`

in connect descriptor

**Cause:**

Unable to locate Oracle database service - the connection to the Oracle database server has been established but the specified Oracle database service is not valid.

**Fix:**

Check the service name specified and verify that you are able to use another tool such as SQL Developer to connect.

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Error logs

...

Caused by: java.sql.SQLException: ORA-01017: invalid username/password; logon denied

**Cause:**

The specified credentials for connecting to the database are invalid.

**Fix:**

Verify the username and password are correct and the user has the correct permissions to be able to read and use the database service.

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Error logs

...

WARN

```
[org.jboss.jca.adapters.jdbc.local.LocalManagedConnectionFactory]
(ServerService Thread Pool -- 65) IJ030027: Destroying connection
that is not valid, due to the following exception:
oracle.jdbc.driver.T4CConnection@351298af:
java.sql.SQLSyntaxErrorException: ORA-00923: FROM keyword not found
where expected
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:447)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:396)
    at oracle.jdbc.driver.T4C80all.processError(T4C80all.java:951)
```

...

### **Cause:**

The SQL statement used to validate the connections in the connection pool is invalid, this will be because DM has been installed with a database type other than **Oracle** so the wrong SQL has been configured.

### **Fix:**

1. Edit the Wildfly configuration file (**standalone.xml** or **domain.xml**) or edit the database 'datasource' connection via the *management console*.

2. Find the **check-valid-connection-sql** property and ensure it is:

```
SELECT 1 FROM DUAL
```

For example:

```
<datasources>
  <datasource jndi-name="java:/PDM" pool-name="PDM" enabled="true" use-java-
context="true" use-ccm="true" statistics-enabled="true">
    ...
    <validation>
      <check-valid-connection-sql>SELECT 1 FROM DUAL</check-valid-connection-sql>
      <validate-on-match>true</validate-on-match>
    </validation>
  </datasource>
</datasources>
```