IoT-FND:无法检查数据库连接。异常：java.sql.SQLException:ORA-28001:密码已过期

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简介

本文档介绍如何解锁Cisco IoT Field Network Director(IoT-FND)的Oracle用户帐户，并将密码到期设置更改为无限制。

先决条件

要求

Cisco 建议您了解以下主题：

- 基本Linux外壳操作（查看日志、启动进程等）
- 基本了解SQL查询

使用的组件

本文档不限于特定的软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

背景信息

本文档假设您有两台独立的Linux服务器：

- IoT-FND-SRV — 托管IoT FND应用的服务器。
- IoT-FND-Oracle — 托管IoT-FND应用的Oracle数据库的服务器。

问题

症状 1:IoT-FND未启动，数据库连接验证失败。

```
[root@IoT-FND-SRV ~]# service cgms status
IoT-FND Version X.X.XX
08-01-2018 15:14:58 CEST: INFO: IoT-FND database server: XX.XX.XX.XX
08-01-2018 15:15:01 CEST: ERROR: IoT-FND database connection verification failed.
08-01-2018 15:15:02 CEST: ERROR: IoT-FND application server is not running.
```

症状 2:cgms_db_connection_test.log包含类似于的条目：

```
[root@IoT-FND-SRV ~]# tail -n 50 /opt/cgms/server/cgms/log/cgms_db_connection_test.log
2018-08-01 12:27:22,767:INFO:main:TestDBConnection: Checking database connection. Please wait
...
2018-08-01 12:27:22,856:INFO:main:TestDBConnection: Database URL:
jdbc:oracle:thin:@XX.XX.XX.XX:1522:cgms
2018-08-01 12:27:22,856:INFO:main:TestDBConnection: Database user: cgms_dev
2018-08-01 12:27:23,156:ERROR:main:TestDBConnection: Unable to check database connection.
Exception:
java.sql.SQLException: ORA-28001: the password has expired
```

注意：IoT-FND应用使用CGMS_DEV数据库用户访问Oracle数据库。

注意： 默认情况下，Oracle数据库启用了密码到期，因此，在一段时间后，帐户密码将过期，如果不更改密码，就无法使用这些密码。

症状 3:Oracle CGMS_DEV用户帐户状态设置为"已过期"。

```
[oracle@IoT-FND-Oracle]$ sqlplus / as sysdba

SQL*Plus: Release 12.1.0.2.0 Production on Wed Aug 1 16:02:25 2018

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Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

SQL> SELECT USERNAME,ACCOUNT_STATUS FROM DBA_USERS WHERE USERNAME LIKE 'cg%';

USERNAME
--------------------------------------------------------------------------------
ACCOUNT_STATUS
--------------------------------
CGMSDBA
OPEN

CGMS_DEV
EXPIRED
```

解决方案

步骤1.使用SSH登录IoT-FND服务器。

步骤2.停止FND服务。

```
[root@IoT-FND-SRV]$ service cgms stop
```

> 注意：如果不停止IoT-FND服务，FND将尝试使用旧密码连接到数据库，在完成此过程之前，帐户将被阻止。

步骤3.使用SSH登录Oracle服务器。

步骤4.切换到oracle系统用户：

```
[root@IoT-FND-Oracle]$ su - oracle
[oracle@IoT-FND-Oracle]$
```

步骤5.以sysdba用户身份连接到Oracle数据库的根实例：

```
[oracle@IoT-FND-Oracle]$ sqlplus / as sysdba

SQL*Plus: Release 12.1.0.2.0 Production on Wed Aug 1 16:19:23 2018

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Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

SQL>
```

步骤6.将password_life_limit设置修改为无限制：

```
sql> ALTER PROFILE DEFAULT LIMIT PASSWORD_LIFE_TIME UNLIMITED;

Profile altered.
```

步骤7.检查哪些帐户的密码已过期。

```
SQL> SELECT USERNAME,ACCOUNT_STATUS FROM DBA_USERS WHERE ACCOUNT_STATUS='EXPIRED';

USERNAME
--------------------------------------------------------------------------------
ACCOUNT_STATUS
--------------------------------
CGMSDBA
OPEN

CGMS_DEV
EXPIRED
```

步骤8.为CGMS_DEV用户设置密码：

```
sql> ALTER USER CGMS_DEV IDENTIFIED BY
```

```
User altered.
```

注意：如果您知道旧密码，可以重用它。如果否，则需要在IoT-FND服务器上运行cgmsSetup.sh脚本，以修改FND中设置的数据库密码。

步骤9.解锁CGMS_DEV用户帐户：

```
SQL> ALTER USER CGMS_DEV ACCOUNT UNLOCK;

User altered.
```

步骤10.验证CGMS_用户的帐户状态：

```
 SQL> SELECT USERNAME,ACCOUNT_STATUS FROM DBA_USERS WHERE USERNAME LIKE 'cg%';

USERNAME
--------------------------------------------------------------------------------
ACCOUNT_STATUS
--------------------------------
CGMSDBA
OPEN

CGMS_DEV
OPEN
```

步骤11.使用SSH登录IoT-FND服务器。

步骤12.启动/opt/cgms/bin/setupCgms.sh脚本以更改数据库密码设置。保留所有其他设置的默认值：

```
[root@IoT-FND-SRV]# /opt/cgms/bin/setupCgms.sh
08-01-2018 16:40:43 CEST: INFO: ========== IoT-FND Setup Started - 2018-08-01-16-40-43
==========
08-01-2018 16:40:43 CEST: INFO: Log file: /opt/cgms/bin/../server/cgms/log/cgms_setup.log

Are you sure you want to setup IoT-FND (y/n)? y

08-01-2018 16:40:46 CEST: INFO: User response: y

Do you want to change the database settings (y/n)? y

08-01-2018 16:40:54 CEST: INFO: User response: y

Enter database server hostname or IP [XX.XX.XX.XX]:
08-01-2018 16:40:55 CEST: INFO: Database server: XX.XX.XX.XX

Enter database server port [1522]:
08-01-2018 16:40:57 CEST: INFO: Database server port: 1522

Enter database SID [cgms]:
08-01-2018 16:40:59 CEST: INFO: Database SID: cgms

Do you wish to configure another database server for this IoT-FND ? (y/n)? n

08-01-2018 16:41:02 CEST: INFO: User response: n
08-01-2018 16:41:02 CEST: INFO: Configuring database settings. This may take a while. Please
```

```
wait ...
08-01-2018 16:41:03 CEST: INFO: Database settings configured.

Do you want to change the database password (y/n)? y

08-01-2018 16:41:06 CEST: INFO: User response: y

Enter database password:




Re-enter database password:




08-01-2018 16:41:10 CEST: INFO: Configuring database password. This may take a while. Please
wait ...
08-01-2018 16:41:13 CEST: INFO: Database password configured.

Do you want to change the keystore password (y/n)? n

08-01-2018 16:41:16 CEST: INFO: User response: n

Do you want to change the web application 'root' user password (y/n)? n

08-01-2018 16:41:19 CEST: INFO: User response: n

Do you want to change the FTP settings (y/n)? n

08-01-2018 16:41:22 CEST: INFO: User response: n

Do you want to change router CGDM protocol settings (y/n)? n

08-01-2018 16:41:24 CEST: INFO: User response: n

Do you want to change log file settings)? (y/n)? n

08-01-2018 16:41:25 CEST: INFO: User response: n
08-01-2018 16:41:25 CEST: INFO: ========== IoT-FND Setup Completed Successfully ==========
```
步骤13.检验数据库连通性：

```
[root@IoT-FND-SRV ~]# service cgms status
IoT-FND Version X.X.X-XXX
08-01-2018 16:46:14 CEST: INFO: IoT-FND database server: XX.XX.XX.XX
08-01-2018 16:46:15 CEST: INFO: IoT-FND database connection verified.
08-01-2018 16:46:15 CEST: ERROR: IoT-FND application server is not running.
```
步骤14.启动IoT-FND应用：

```
[root@IoT-FND-SRV ~]# service cgms start
```
步骤15.检验IoT-FND操作：

```
[root@IoT-FND-SRV ~]# service cgms status
IoT-FND Version X.X.X-XXX
```

```
08-01-2018 16:49:04 CEST: INFO: IoT-FND database server: XX.XX.XX.XX
08-01-2018 16:49:04 CEST: INFO: IoT-FND database connection verified.
08-01-2018 16:49:05 CEST: INFO: IoT-FND application server is up and running.
08-01-2018 16:49:06 CEST: INFO: IoT-FND is up and running.
```