Configuring a DB2 for z/OS Resource in Metadata Manager 8.6

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Abstract

This article shows how to configure a DB2® for z/OS® resource in Metadata Manager 8.6 to extract metadata from a DB2 for z/OS system.

Supported Versions

- Metadata Manager 8.6

Overview

DB2 for z/OS is a Relational Database Management System (RDBMS) that runs on z/OS. Metadata Manager uses PowerExchange® for DB2 for z/OS to access metadata from z/OS subsystems. Metadata Manager imports the following types of IBM DB2 for z/OS functions:

- Built-in
- User-defined
- Scalar
- Column
- Table

Before You Begin

Before you configure a DB2 for z/OS resource, complete the following tasks:

- Install PowerExchange on z/OS and on the machine where the Metadata Manager Service runs.
- Configure the PowerExchange Listener on z/OS.
- Configure privileges.

Install PowerExchange

Metadata Manager uses PowerExchange to extract metadata from DB2 subsystems. Install PowerExchange in the following locations:

- The machine where the Metadata Manager Service runs
- The z/OS system hosting the DB2 for z/OS subsystem

Configure PowerExchange on the Machine where the Metadata Manager Service Runs

To access metadata from a DB2 for z/OS subsystem, install PowerExchange on the machine where the Metadata Manager Service runs. You must also install PowerExchange on the z/OS system where DB2 runs. Complete the following tasks:

- Configure PowerExchange to connect to z/OS on the machine where the Metadata Manager Service runs.
- Configure dbmover.cfg on the machine where the Metadata Manager Service runs with a NODE statement that points to the PowerExchange Listener on z/OS.
- Configure the following security setting in the DBMOVER configuration file on z/OS:

  ```
  SECURITY=(2,N)
  ```

  Optionally, configure the PowerExchange Listener on z/OS to recognize logins that are known to the operating system.

  The following information shows an example of dbmover.cfg:

  ```
  /************************************************************/
  /*  PowerExchange Configuration File
  ```

```
/*********************************************************************/
LISTENER=(node1,TCPIP,2480)
LISTENER=(BGQALST,TCPIP,30080)
LISTENER=(BGQALST_new,TCPIP,448)
LISTENER=(DB2zOS_SPEDDUR,TCPIP,448)
/*********************************************************************/
NODE=(DB2zOS_SPEDDUR,TCPIP,mhz890-2,3156)
NODE=(local,TCPIP,000.0.0.1,2480)
NODE=(node1,TCPIP,000.0.0.1,2480)
NODE=(BGQALST,TCPIP,mhz890-2,30080)
```

For more information, see the *PowerExchange Bulk Data Movement Guide*.

Configure DB2 for z/OS Privileges

When you load a DB2 for z/OS resource, Metadata Manager extracts metadata from the DB2 for z/OS subsystem. Metadata Manager selects the metadata from DB2 catalog tables. Configure SELECT privileges on the following tables in the DB2 for z/OS user account you are using to connect to the metadata source:

System Tables	Metadata Extracted from These Tables
SYSIBM.SYSSYNONYMS SYSIBM.SYSTABLES SYSIBM.SYSROUTINES SYSIBM.SYSSEQUENCES SYSIBM.SYSDATATYPES	Schemas
SYSIBM.SYSTABLES SYSIBM.SYSTABLESPACE SYSIBM.SYSVIEWS	Tables Views Alias
SYSIBM.SYSTABLES SYSIBM.SYSCOLUMNS SYSIBM.SYSTABLESPACE	Columns
SYSIBM.SYSKEYS SYSIBM.SYSINDEXES	Primary keys
SYSIBM.SYSRELS SYSIBM.SYSFOREIGNKEYS SYSIBM.SYSINDEXES	Foreign keys
SYSIBM.SYSCHECKS SYSIBM.SYSCHECKDEP	Check constraints
SYSIBM.SYSINDEXES SYSIBM.SYSKEYS	Indexes
SYSIBM.SYSSYNONYMS SYSIBM.SYSTABLES	Synonyms
SYSIBM.SYSTRIGGERS	Triggers
SYSIBM.SYSROUTINES	Stored procedures
SYSIBM.SYSROUTINES	Functions
SYSIBM.SYSSEQUENCES	Sequences
SYSIBM.SYSSEQUENCESDEP SYSIBM.SYSSEQUENCES	Identity
SYSIBM.SYSDATATYPES	User-defined types

Note: If the PowerExchange Listener does not use DB2 security, configure SELECT privileges for the PowerExchange Listener user ID instead of the DB2 for z/OS user account. For more information, see the *PowerExchange Reference Manual*.

Create a DB2 for z/OS Resource in Metadata Manager

When you create a DB2 for z/OS resource, you configure the name and description, configure connection information, and add schedules.

To create a DB2 for z/OS resource in Metadata Manager:

1. On the Load page, click the New Resource icon.

   The Resource Selection window appears.
2. Click Database Management > DB2 for z/OS.
3. Click Next.

   The Properties page appears.
4. Configure the following properties:

Property	Description
Name	Name for the resource. The resource name appears in the Resource List section. The name must be unique and from 1 through 256 characters. It cannot include the following characters: / \ : * ' ? " < > | [ ] Note: You cannot change the resource name after creating it.
Description	Description for the resource. Description cannot exceed 4000 characters.

5. Click Next.

   Step 3 of the Resource Wizard appears.
6. Configure the following connection properties to connect to the DB2 for z/OS subsystem:

Property	Description
User name	z/OS user ID.
Password	Password for the z/OS user ID.
Location	Node name in the dbmover.cfg file on the machine where the Metadata Manager Service runs that points to the PowerExchange Listener on the z/OS system.
Subsystem ID	Identifier for the DB2 subsystem.
Encoding	Code page for the DB2 subsystem.

7. Click Next.
8. To enable profiling information extraction for the resource, select the Profile Source option.
9. To add a schema to the Selected Schemas list, select the schema in the Available Schemas list and click Add.
10. To remove a schema from the Selected Schemas list, select the schema in the Selected Schemas list and click Remove.
11. Click Next.

    The Schedules window appears.
12. To add a schedule, select Attach a Schedule and select a schedule in the Schedule list.

    If you have not created a schedule, you can assign a schedule to the resource after you create the resource.
13. Click Finish.

    The Resource appears in the Resource List section on the Load page.

Troubleshooting

While connecting to the DB2 for z/OS database, I encountered invalid connection information.

This message can occur due to the following errors:

- **PowerExchange installed on the wrong machine.** Install PowerExchange on the machine where the Metadata Manager Service runs.
- **dbmover.cfg configured incorrectly.** Configure dbmover.cfg with the correct parameters to connect with PowerExchange Listener on z/OS hosting the DB2 for z/OS subsystem. Run the following command to check whether PowerExchange is able to connect to PowerExchange Listener on z/OS:

  ```
  dtlrexe prog=ping loc=<location as given in node entry> uid=<user ID>
  pwd=<password>
  ```

- The user name and password used to connect to DB2 for z/OS are incorrect.

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