



Database Management for Db2 for z/OS 20.0 (Db2 Tools) Customer Community Update Team Product Owners

November 14th, 2022

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Agenda

Db2 Tools

- Mainframe Tech Exchange On Demand
- Level Set 20.0.05

Log Analyzer

- LUWID filtering in Strategies

Database Analyzer

- Aggregate %RTS symbolics

Restful Services

- Client Certificate Authentication

Please Provide Feedback...





Db2 Tools

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Broadcom Mainframe Technical Exchange

October 2022 Content Available On-Demand

- Access education sessions, product roadmaps, and demos
- No registration fee! Open to all Broadcom customers
- Register at <http://bit.ly/2022TechExchange>
- On-demand content available through Feb. 28, 2023



Catch the Top Three Most Viewed Sessions:

1. [DM04-S Whats new for Db2 Tools --- A recap of the last year](#)
2. [DM03 What's new in Broadcom Db2 Utilities?](#)
3. [DM08-S Intelligent, automated, and flexible Db2 housekeeping and beyond using Database Analyzer for Db2 for z/OS](#)

Level Set 20.0.05 - LU07187 (1|2)

September 9th, 2022

- Database Analyzer
 - **Aggregate RTS Symbolics for Multi-Part Processing – Activation Required**
- Log Analyzer
 - **LUWID Filter Options in the DML and DDL Report Strategies – Activation Required**
 - Partial Update Reconstruction AFTER from Incremental Images
- Fast Unload
 - Trailing Decimal Point for Externally Formatted Numbers
- RC/Migrator, RC/Compare, and RC/Update
 - **Improved DDL for Implicitly Created Databases**
- RC/Query
 - **SET CURRENT RULES Support**

Level Set 20.0.05 - LU07187 (1|2)

September 9th, 2022

- Sysview for Db2
 - Suppress Header Type in the CSV Output
 - Support for New Subsystem Statistics Fields
 - Accounting Record Filtering in History File Load
 - **Support for New DSNZPARMs**
 - Updated Support for CICS Transaction Server
 - Support for new Lock and CPU Time Fields

Please Provide Feedback...

PTF: [LU07187](#)

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Log Analyzer: LUWID Filtering in Strategies (20.0.05)

Jakub Hofman

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Log Analyzer – LUWID filtering in strategies

New option allowing users to filter log records

Also available in strategies for repetitive reporting

Available for DDL and DML reports

Filter panel:

```
Filter Type ==> INCLUDE
SSID: DB2Z ----- USERID1
Enter the desired LUWIDs below.

Cmd  Network ID  Name      Instance Number
--  -
```

Log Analyzer – LUWID filtering

LUWID filtering in DDL activity report option panels

```
LARDDL ----- DDL Activity Report Options ----- 22/09/09 01:09
COMMAND ==>
Enter SAVE to save settings in ISPF profile, End/PF3 to continue.
FORMAT OPTIONS
Output Format ==> R ( R - Rept, D - Redo DDL, U - Undo DDL )
Level of Detail ==> S ( S - Smry, D - Detail, T - Tot, 0 - Object )
Customize Rept ==> N ( Y , N , U ) Form ==> ----- Creator ==> -----

LOG DATA FILTER OPTIONS ( I - Include Data Filters, X - Exclude Data Filters )
Plan Filters ==> - Connection Ids ==> - LUWID filters ==> -
Primary Authids ==> - Correlation Ids ==> -
Join Operator ==> AND ( AND / OR )

OBJECT FILTER OPTIONS ( I - Include Data Filters )
Database Filter ==> - Tablespace Filter ==> -

MISCELLANEOUS OPTIONS
Grant/Revoke ==> X ( I , X , 0 ) Generate Table OBIDs ==> Y ( Y , N )
Bind /Rebind ==> X ( I , X , 0 ) LOB Column Data ==> X ( I , X )
Display Options ==> Y ( Y , N ) Redo/Undo URID header ==> N ( Y , N )
DDL SQLID ==> S ( S - Schema, 0 - Omit, P - Profile )
```

Log Analyzer – LUWID filtering

LUWID filtering in DML activity report option panel

```

LAPRDML ----- DML Activity Report Options ----- 22/09/09 01:06
COMMAND ==>
Enter SAVE to save settings in ISPF profile, End/PF3 to continue.

FORMAT OPTIONS
Output Format ==> R ( R -Rept, S -RedoSQL, U -UndoSQL, L -Load Fmt, P -Updt)
Level of Detail ==> S ( S - Smry, D - Detail, T - Tot, K - Key, I - ImageCopy)
Order Output By ==> U ( U , A , AC , P , T , K , KU , RE , UN )
Customize Rept ==> N ( Y , N , U ) Form ==> ----- Creator ==> -----

LOG DATA FILTER OPTIONS ( I - Include Data Filters, X - Exclude Data Filters )
Table Filters ==> - Database Filters ==> - Statement Type ==> -
Plan Filters ==> - Connection Ids ==> - LUWID filters ==> -
Primary Authids ==> - Correlation Ids ==> -
Join Operator ==> AND

FILTER EXPRESSION ==> N ( Y , N )

MISCELLANEOUS OPTIONS
Rollbacks ==> I ( I , X , 0 ) Specify KeyCols ==> N ( Y , N )
Catalog Updates ==> X ( I , X ) Set LOAD Options ==> N ( Y , N )
Report Discards ==> N ( Y , N ) Discard Limit ==> 0
Subsequent Opts ==> N ( Y , N ) Related Updates ==> N ( Y , N )
Directory Updates ==> X ( I , X ) Undefined Tables ==> I ( I , X )
LOB Column Data ==> X ( I , X ) Display Options ==> Y ( Y , N )
Redo/Undo SQL Opt ==> N ( Y , N ) XML Column Data ==> X ( X , S )
  
```



Database Analyzer: Aggregate %RTS symbolics (20.0.05)

Jakub Hofman

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Database Analyzer – Aggregate %RTS symbolics

RTS symbolics (%RTS*) represent the values that were found in the RTS table for a given object.

Aggregated RTS automatic symbolics (%RTS*) for each selected tablespace partition (in conjunction with %PARTLIST)

List of RTS symbolics as well as other feature details is available via Broadcom's documentation

Database Analyzer – Aggregate %RTS symbolics

Example

```
#ENDIF
REORG %OBJTYPE %CREATOR..%OBJECT %PARTLBL %PARTLIST
--RTSTROWS = %RTSTROWS
#CM SHRLEVEL REFERENCE for DB2 9+ LOB objects
#CM SHRLEVEL CHANGE   for DB2 8+ non-LOB objects
#CM SHRLEVEL NONE      for DB2 8- LOB objects
#IF(%UASORAVL)
#IF(%LOBRLATD,EQ,LOB)
  SHRLEVEL REFERENCE
#ELSE
  SHRLEVEL CHANGE
  SORTDEVT %UNIT
  SORTNUM %SORTNUM
#ENDIF
#IF(%RTSTROWS,GT,200000)
  SAMPLE 5
#ENDIF
#IF(%OBJTYPE,EQ,TABLESPACE)
  COPYDDN(%SYSCPY)
#ENDIF
#ELSEIF(%UASILIC)
  SORTDEVT %UNIT      SORTNUM %SORTNUM
  SHRLEVEL REFERENCE  COPYDDN(%SYSCPY)
#ELSE
  SHRLEVEL NONE
#ENDIF
```

Please Provide Feedback...

PTF: [LU07187](#)

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Db2 Tools Restful Services: Supporting client certificates (LU07078)

Rabah Beggar

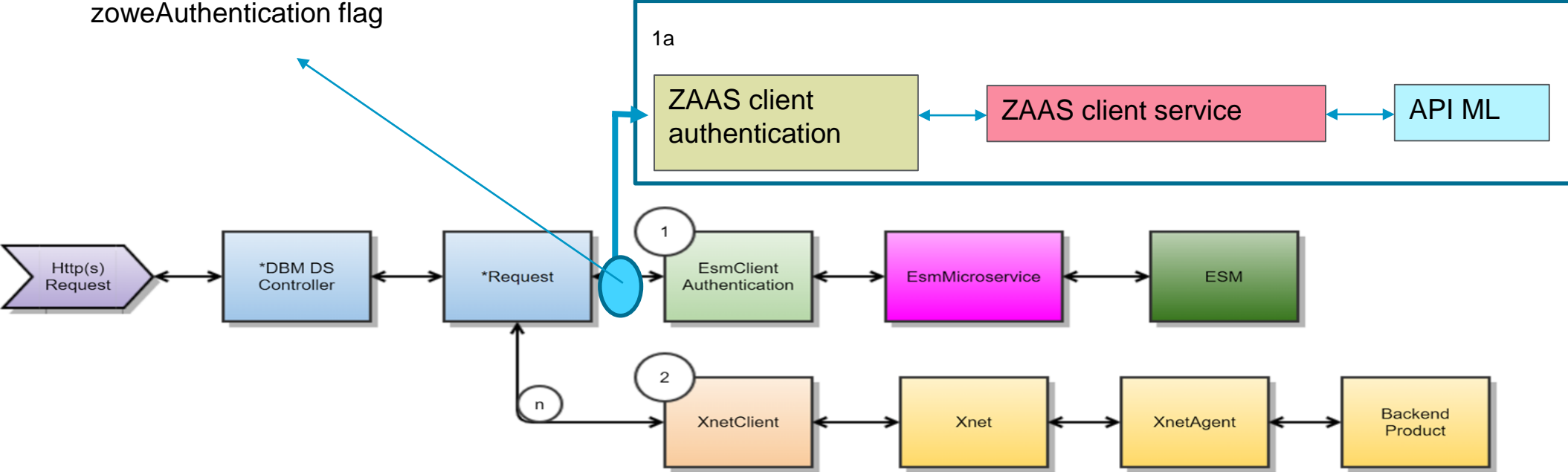
Rabah.beggar@Broadcom.com

Use cases

The MTC DBM UI and IDB2 REST APIs now provide support client certificates authentication using Zowe API ML authentication.

- As a DBA, I want to be able to authenticate with client certificates with DBM DS UI to my environment, so I can use dashboards/grafana.
- As a DBA, I want to be able to continue to use ESM for basic authentication with DBM DS UI with no changes to my environment, so I can use dashboards/grafana.

Overview



Overview

```
----- Configuration - Edit Parameters -----  
  
For more information about a parameter, use the cursor-sensitive help.  
  
      >>> Authentication settings <<<  
  
Authentication service . . . . ZOWE  
Specify ESM (ESM Microservice) or ZOWE (Zowe API Mediation Layer gateway) and  
press Enter to set up an authentication service provider.  
  
Host  
==>                     .broadcom.net  
Specify the host name or TCP/IP address of the Zowe API ML gateway service.  
  
Port . . . . . 10010  
Specify the TCP/IP port number of the Zowe API ML gateway service.  
  
Authentication endpoint  
==> /gateway/api/v1/auth  
Specify the Zowe API ML authentication endpoint. The default value is  
/gateway/api/v1/auth.  
  
Application name . . . . . IZUDEFLT  
Specify an application name (APPLID) for Passticket generation. Value should  
be same as the authentication service provider APPLID.  
  
***** Bottom of data *****
```

Overview

- DBM DS has been enhanced to have /login and /query endpoints.

Auth DBM Data Service user authentication services		
POST	/api/v1/auth/login	Authenticate mainframe user credentials and return authentication token
GET	/api/v1/auth/query	Validate the token and return token details

- **/login** -> Authenticates a user and returns details in standard DBM response format. Sample cURL:



login_response_zowe.json

Curl

```
curl -X 'POST' \
'https://usilca31.lvn.broadcom.net:63018/dbm/api/v1/auth/login?flattenResults=false' \
-H 'accept: application/json' \
-H 'Authorization: Basic cmtsZ28wMTpoZWFMjI=' \
-d ''
```

- **/query** -> Validates the token generated by /login endpoint and returns details in standard DBM response format. Sample cURL used:



query_response_zowe.json

Curl

```
curl -X 'GET' \
'https://usilca31.lvn.broadcom.net:63018/dbm/api/v1/auth/query?flattenResults=false' \
-H 'accept: application/json' \
-H 'Authorization: Bearer eyJraWQiojVekdfvNNSFJzVlFGbu4xbvZCVMtV3RDdXB7MXItSzdld2IjbjA5SUJnIiwidHlwIjoiaUkiYWNxInRoiUwMyNTYifQ.eyJ0b2tlbl90eXBBIjoimVmcmVyIiwic3ViIjoiciM'
```

Please Provide Feedback...

PTF: LU07078

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In Closing...

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- ✓ Learn about value-add Beyond Code programs
- ✓ Let us know what you think about the programs and how we can improve to serve you most effectively
- ✓ Ensure maximum value from your investments

Survey Closes: December 13, 2022

CA Db2 Tools 20.0 Validation Project

<https://validate.broadcom.com/key/DB2Tools200>

Our next call will be on November 21st, 2022



Thank You

