

Requirements for DB2 for z/OS

Since v5.5.5/6

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DB2 for z/OS		
Capture	Hub	Integrate
✓	✗	✓

This section describes the requirements, access privileges, and other features of HVR when using 'DB2 for z/OS' for replication. For information about compatibility and supported versions of DB2 for z/OS with HVR platforms, see [Platform Compatibility Matrix](#).

For the [Capabilities](#) supported by HVR on DB2 for z/OS, see [Capabilities for DB2 for z/OS](#).

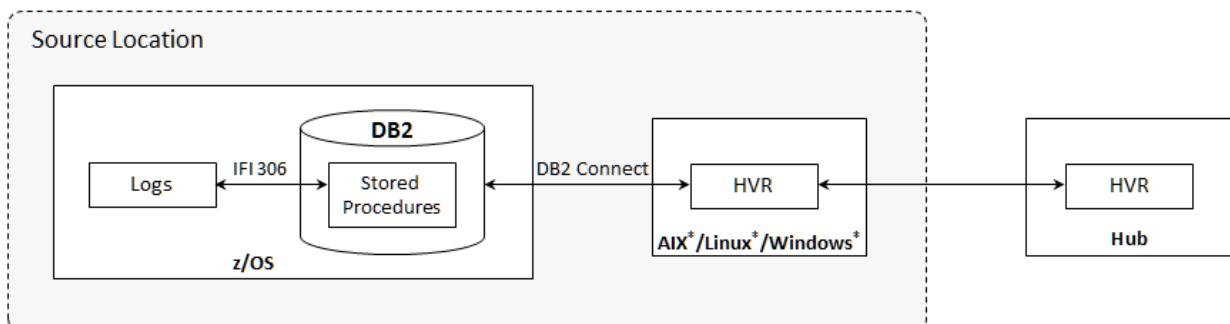
For information about the supported data types and mapping of data types in source DBMS to the corresponding data types in target DBMS or file format, see [Data Type Mapping](#).

HVR does not support the DB2 data sharing feature - Sysplex.

Introduction

To capture from DB2 for z/OS, HVR needs to be installed on a separate machine (either 64-bit Linux on Intel or 64-bit Windows on Intel or 64-bit AIX on PowerPC) from which HVR will access DB2 on z/OS machine. Additionally, the HVR stored procedures need to be installed on DB2 for z/OS machine for accessing DB2 log files. For steps to install the stored procedures on DB2 for z/OS machine, refer to section [Installing HVR Capture Stored Procedures on DB2 for z/OS](#).

HVR requires DB2 Connect for connecting to DB2 for z/OS. For information about the supported DB2 Connect versions, refer to the HVR release notes (**hvr.rel**) available in **hvr_home** directory or the download page.



* indicates either 64-bit AIX on PowerPC or 64-bit Linux on Intel or 64-bit Windows on Intel

Prerequisites for HVR Machine

HVR requires DB2 client or DB2 server or DB2 Connect to be installed on the machine from which HVR connects to DB2 on z/OS. The DB2 client should have an instance to store the data required for the remote connection.

To setup the DB2 client or DB2 server or DB2 Connect, use the following commands to catalog the TCP/IP node and the remote database:

```
db2 catalog tcpip node nodename remote hostname server portnumber  
db2 catalog database databasename at node nodename
```

- *nodename* is the local nickname for the remote machine that contains the database you want to catalog.
- *hostname* is the name of the host/node where the target database resides.
- *databasename* is the name of the database you want to catalog.

For more information about configuring DB2 client or DB2 server or DB2 Connect, refer to [IBM documentation](#).

To test the connection with DB2 server on the z/OS machine, use the following command:

```
db2 connect to databasename user username
```

Location Connection

This section lists and describes the connection details required for creating DB2 for z/OS location in HVR. HVR connects, reads and writes data to DB2 for Linux, UNIX and Windows location using SQL Call Level Interface via db2Connect.

Field	Description
Database Connection	
INSTHOME	The directory path of the DB2 installation on HVR machine. Example: /db2/11.1
DB2INSTANCE	The name of the DB2 instance. Example: mydb2inst
Database	The database alias for DB2 for z/OS. Example: mydb2alias
User	The username to connect HVR to Database . Example: hvruser
Password	The password of the User .

Capture

HVR supports capturing changes from DB2 for z/OS. This section describes the configuration requirements for [capturing](#) changes from DB2 for z/OS location. For the list of supported DB2 for z/OS versions, from which HVR can capture changes, see [Capture changes from location](#) in [Capabilities](#).

HVR uses IFI 306 via HVR stored procedures to capture data from DB2 for z/OS location.

Table Types

HVR supports capture from the following table types in DB2 for z/OS:

- Regular Tables
- Compressed Tables
- Partitioned Tables
- History Tables **Since** v5.7.5/7
- Archive Tables **Since** v5.7.5/7

Grants for Capture

The following grants are required for capturing changes from DB2 for z/OS:

1. To create stored procedures, the **User** must be granted **createin** privilege on the schema.

```
grant createin on schema myschema to authid;
```

2. To read information from the transaction log, the **User** must be granted **monitor2** privilege.

```
grant monitor2 to hvruser;
```

3. To execute stored procedures created by the *authid* user, the **User** must be granted **execute on procedure** privilege for the stored procedures - **hvr.hvrcaplg** and **hvr.hvrcapnw**.

```
grant execute on procedure hvr.hvrcaplg to hvruser;  
grant execute on procedure hvr.hvrcapnw to hvruser;
```

4. To fetch information about the DB2 for z/OS installation, the **User** must be granted **select** privilege for the following **SYSIBM** tables.

```
grant select on table sysibm.sysauxrels to hvruser;  
grant select on table sysibm.syscolumns to hvruser;  
grant select on table sysibm.sysdatabase to hvruser;  
grant select on table sysibm.sysforeignkeys to hvruser;  
grant select on table sysibm.sysindexes to hvruser;  
grant select on table sysibm.syskeys to hvruser;  
grant select on table sysibm.sysparms to hvruser;  
grant select on table sysibm.sysrels to hvruser;  
grant select on table sysibm.sysroutines to hvruser;  
grant select on table sysibm.syssynonyms to hvruser;  
grant select on table sysibm.systablepart to hvruser;  
grant select on table sysibm.systables to hvruser;
```

Supplemental Logging

Supplemental logging can be enabled by defining action [HVR Initialize /Supplemental Logging](#) or by using the command `hvrinit -ol`.

To enable supplemental logging, the **User** should be either owner of the replicated tables or have DBADM or SYSADM or SYSCTRL authority.

Alternatively, executing the following command on replicated tables has the same effect:

```
alter table tablename data capture changes;
```

Integrate and Refresh Target

HVR supports integrating changes into DB2 for z/OS location. This section describes the configuration requirements for integrating changes (using [Integrate](#) and [Refresh](#)) into DB2 for z/OS location. For the list of supported DB2 for z/OS versions, into which HVR can integrate changes, see [Integrate changes into location](#) in [Capabilities](#).

Grants for Integrate and Refresh Target

The following grants are required for integrating changes into DB2 for z/OS:

1. To read and change the replicated tables, the **User** must be granted **select**, **insert**, **update**, and **delete** privileges.

```
grant select, insert, update, delete on table myschema.mytable to hvruser;
```

2. To create and drop HVR state tables, the **User** must be granted **createtab** privilege.

```
grant createtab on database mydatabase to hvruser;
```

3. To fetch information about the DB2 for z/OS installation, the **User** must be granted **select** privilege for the following **SYSIBM** tables:

```
grant select on table sysibm.sysauxrels to hvruser;  
grant select on table sysibm.syscolauth to hvruser;  
grant select on table sysibm.syscolumns to hvruser;  
grant select on table sysibm.sysdatabase to hvruser;  
grant select on table sysibm.sysforeignkeys to hvruser;  
grant select on table sysibm.sysindexes to hvruser;  
grant select on table sysibm.syskeys to hvruser;  
grant select on table sysibm.sysparms to hvruser;  
grant select on table sysibm.sysrels to hvruser;  
grant select on table sysibm.sysroutines to hvruser;  
grant select on table sysibm.syssynonyms to hvruser;  
grant select on table sysibm.systabauth to hvruser;  
grant select on table sysibm.systablepart to hvruser;  
grant select on table sysibm.systables to hvruser;
```

Compare and Refresh Source

HVR supports compare and refresh (source location) in DB2 for z/OS location. This section describes the configuration requirements for performing [HVR Compare](#) and [HVR Refresh](#) (source location) in DB2 for z/OS location.

Grants for Compare and Refresh Source

The following grant is required for performing [HVR Compare](#) and [HVR Refresh](#) (source location) in DB2 for z/OS:

To read from the replicated tables, the **User** must be granted **select** privilege.

```
grant select on table myschema.mytable to hvruser;
```