DELPHIX

Delphix Pricing Guide

March 2019

Introduction

Delphix offers our software with a usage-based pricing model. Meaning, the price is dependent on the amount of data managed - separately by the Delphix Dynamic Data Platform or Masking.

Delphix has introduced this pricing model such that our customers can use our software and services without having to worry about the number of software instances running. With this pricing model, our customers can use and pay for only as much as is needed and deploy the software in whatever fashion they deemed fit.

Usage measurements are required for each calendar quarter. Delphix prices are based on terabytes of source data managed by the Delphix Dynamic Data Platform and Masking. That is, the allocated, uncompressed size of the data as determined by each database platform. Pricing is determined by the source size (in TB units) such that any number of VDBs or replica copies can be created. In subsequent sections, we document how to find this number in the Delphix Dynamic Data Platform software and Masking as well as queries that can be run on the RDBMS.

Since we just introduced this pricing, customers will have to self-report usage for the time being. Over time, the Delphix Dynamic Data Platform and Masking will be able to automatically measure and send the usage data to Delphix.

Definitions

- During the License Term of the Software specified under your Order Form, Customer will report the Usage of the Software to Delphix on a calendar quarterly basis based on the Usage metric set forth under the Order Form ("Usage Report") within fifteen (15) days after the end of each calendar quarter (i.e. January 15, April 15, July 15 and October 15) to Delphix Operations Department (usage@delphix.com).

- Each Usage Report must detail the usage of the Software during the reporting period set forth in the foregoing sentence; an example of the Usage Report is provided at the end of this document.

- Customer will not incur additional fees for any overage of Usage in the calendar quarter the overage occurred; however, if such overage occurs in two (2) consecutive calendar quarters, then such overage will establish the new Usage or consumption level for the prior immediate calendar quarter, in which case Delphix will contact Customer to discuss the charges to be assessed for the incremental Usage through the end of the License Term specified under the applicable Order Form.

- Customer has thirty (30) days to remedy its failure to provide Delphix with the Usage Reports required under this Order Form for any missed second consecutive reporting. Customer's failure to provide such Usage Reports to Delphix despite the grace period of thirty (30) days as stated in the foregoing sentence will be deemed a material breach and will result in the immediate termination of Customer's license grant to use the Software and/or suspension of services by Delphix.

- "Files" means the files residing on any operating system Delphix then currently supports as set forth in the Documentation.

- "Source Database(s)" means the database(s) and/or Files ingested into the Software for purposes of creating virtualized data and/or masked data.

- "Data Sets" mean the primary Files or database data and any copies thereof.

- "TB (Terabyte)" means the [raw size] of the original Source Database(s) and/or Files specified by Customer for consumption/usage prior to ingestion and compression in the Software where the Unit of measure is defined in Terabyte. 1 TB (Terabyte) = 1024 GB (Gigabyte). The Unit will always be measured in whole number(s). For example, if the Unit is measured as 10.1 TB, then it will be rounded up to 11 TB.

- "Unit" means the number of TB purchased by Customer for use with the Software license(s).

- "Usage" means the total TB size of all Source Databases and Files managed by the Software as measured at the end of each calendar quarter to a whole number in Terabyte.

- Delphix Dynamic Data Platform: Allows for unlimited deployment of virtual and physical Data Sets. However, if Customer purchases Usage under 10TB, then the number of physical and virtual Data Sets is limited to 100.

- Delphix Masking: Includes (a) standard connectors that are then currently supported by Delphix as set forth in the Documentation; and (b) standard Files that are then currently supported by Delphix as set forth in the Documentation. Premium connectors that are then currently supported by Delphix as set forth in the Documentation are licensed separately and will be at an additional charge. Delphix Masking purchased on a standalone basis (without the Delphix Dynamic Data Platform) may only be used to mask non-virtualized data sources.

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Delphix Dynamic Data Platform (Virtualization)

Direct Measurement

Before the Delphix Dynamic Data Platform is installed, the following commands can be run against each database to get an estimate of the usage..

Oracle: For the current database, please run:

```
SELECT sum(bytes)/POWER(1024,4) as size_in_tb
FROM (SELECT sum(bytes) AS bytes
        FROM v$datafile_header dh
        WHERE status <> 'OFFLINE'
        UNION SELECT MAX(block_size * file_size_blks) AS bytes FROM v$controlfile)
```

For multitenant databases, you will need to measure all Container Databases (CDBs) that will have at least one Pluggable Database (PDB).

For each CDB, please specify the root CDB ID, seed PDB ID, and all PDB IDs that will be used with Delphix. Enter these values as part of dh.con_id in (1,2, <list of PDB ids>):

```
SELECT sum(bytes)/POWER(1024,4) as size_in_tb
FROM (SELECT sum(bytes) AS bytes
        FROM v$datafile_header dh
        WHERE status <> 'OFFLINE' AND dh.con_id IN (1,2 <list of PDB ids>)
        UNION SELECT MAX(block_size * file_size_blks) AS bytes FROM v$controlfile;
```

Note: dh.con_id values of 1 and 2 represent the root CDB and seed PDB, which will be included if that CDB will be linked. All following id numbers represent your PDBs.

SQL Server: When connected to SQL Server, please run the following to list database sizes for each instance:

```
exec sp_spaceused
```

DB2 Unix/Linux: Important note: DB2 does not currently show the right size in the UI.
When connected to the DB2 database, please run the following to list database sizes:

```
Db2 "call get_dbsize_info(?,?,?,-1)"
```

SAP ASE: With the database selected, run the following:

```
sp_spaceused
go
```

Alternatively, to see the usage of all databases in an ASE instance, connect to the ASE Dataserver and run the following:

```
sp_helpdb
go
```

SAP HANA: Important note: HANA does not currently show the right size in the UI. As the user "system" in the tenant:

```
select v.service_name, v.volume_id, f.file_name, f.used_size, f.total_size
from m_volumes v, m_volume_files f
where v.volume_id = f.volume_id
and f.file_type = 'DATA'
order by v.volume_id;
```

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PostgreSQL/EnterpriseDB: Important note: Postgres does not currently show the right size in the UI. For either the oid or database name, please run:

```
pg_database_size(oid)
```

or

```
pg_database_size(databasename)
```

Unix File System: Important note: File systems do not currently show the right size in the UI. Since support for virtual files is based on a directory of files, this query will check the contents of a given directory, `directory`, and return the directory's total storage usage on the file system.

```
du -sh `directory`
```

Windows File System: IImportant note: File systems do not currently show the right size in the UI. Since support for virtual files is based on a directory of files, this query will check the contents of a given directory, `directory`, and return the directory's total storage usage on the file system.

```
Get-ChildItem -Path C:\Path\To\Directory -Recurse | Measure-Object -Sum Length
```

Extensible Data Source Integration (EDSI): Extensible Data Source Integrations will each come with their own guidelines for measurement. Please work with your account rep or partner.

Via the Dynamic Data Platform

Once the Dynamic Data Platform is installed and connected to sources, the product itself can report the space utilization. This can be done via the UI, the command line or Delphix Reporting.

1. **Via the UI**: In versions 5.2+ of the software, execute the following for each source database on each production (non-replica) virtualization engine.
     a. Navigate to "Datasets" from the "Manage" tab
     b. Select the first dSource
     c. Navigate to the "Configuration Tab"
     d. Copy the number in the "Size" field. This is the number you will report.
     e. Repeat for next source or on the next Engine, as needed

2. **Via the Command Line**: From the Delphix command line, execute the following on each production (non-replica) engine.
     a. Enter the source view by typing "source"
     b. To see the size of all data sets, type "list display=name,virtual,runtime.databaseSize"
     c. Copy all the items where the "VIRTUAL" column is "false"
     d. Repeat for each engine

Delphix Masking

Delphix Masking does not directly expose the size of data in the UI. To determine usage, please use the direct measurement commands below. Delphix Masking is based on the size of the database that contains data to be masked.

Direct Measurement

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Oracle: For the current database, please run:

```
SELECT sum(bytes)/POWER(1024,4) as size_in_tb
FROM (SELECT sum(bytes) AS bytes
        FROM v$datafile_header dh
        WHERE status <> 'OFFLINE'
        UNION SELECT MAX(block_size * file_size_blks) AS bytes FROM v$controlfile)
```

SQL Server: When connected to SQL Server, please run the following to list database sizes for each instance:

```
exec sp_spaceused
```

DB2 on iSeries: From the iSeries system interface:

      1. Run the RTVDSKINF job to retrieve disk information

      2. Run the PRTDSKINF RPTTYPE(*LIB) job to print the disk information as a report

      3. Pull from the produced report the TOTAL reported as "Size in 1000 bytes" just before "E N D O F L I S T I N G"

DB2 Unix/Linux: When connected to the DB2 database, please run the following to list database sizes:

```
Db2 "call get_dbsize_info(?,?,?,-1)"
```

For DB2 DPF databases the prefix db2_all is needed. The command must run on the originator node:

```
db2_all ""db2 call get_dbsize_info(?,?,?,1)""
```

DB2 z/OS: When DB2 tables are created on the mainframe they are stored in tablespaces housed in VSAM linear datasets. These datasets are allocated on disk when the table/tablespace is created. The disk allocation of the dataset (file) is usually in units of tracks or cylinders. ZOS disk capacity is measured in these units. Each track contains approximately 56K bytes of useable storage. 3390 is the most common disk type. See this conversion doc http://ibmmainframes.com/references/disk.html to enable conversion from tracks and cylinders to bytes.

By determining the number of tracks/cylinders allocated to the underlying files, conversion to bytes can be easily performed. Most SysAdmins and DBAs will have processes for tracking and forecasting disk requirements for their DB2 subsystems. For those that do have a tool/method that tracks disk usage, the process below can be followed.

      1. Determine naming convention for DB2 VSAM files. This information will be known by the DB2 systems programmers and available through the ISPF option "DM".

      2. Execute IDCAMS "LISTCAT" via JCL or interactively via ISPF catalog search facility.

      3. LISTCAT will produce details of the VSAM datasets including HI-ALLOCATED RBA which is the relative byte address of the

```
LISTCAT ALL ENTRIES(DSNA10.DSNDBD.DSN01019.EMPLOYEE.I0001.A001)
DATA ---------- DSNA10.DSNDBD.DSN01019.EMPLOYEE.I0001.A001
     IN-CAT --- CATALOG.DSNA10
     HISTORY
         DATASET-OWNER----IBMUSER      CREATION--------2017.076
         RELEASE---------------2      EXPIRATION------0000.000
         ACCOUNT-INFO--------------------------------(NULL)
     PROTECTION-PSWD-----(NULL)      RACF---------------(NO)
     ASSOCIATIONS
         CLUSTER--DSNA10.DSNDBC.DSN01019.EMPLOYEE.I0001.A001
```

```
ALLOCATION
     SPACE-TYPE------CYLINDER      HI-A-RBA----------737280
     SPACE-PRI-------------1      HI-U-RBA----------737280
     SPACE-SEC-------------1
```

SAP ASE: With the database selected, run the following:

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sp_spaceused
go
```

Alternatively, to see the usage of all databases in an ASE instance, connect to the ASE Dataserver and run the following:

```
sp_helpdb
go
```

PostgreSQL/EnterpriseDB: Important note: Postgres does not currently show the right size in the UI. For either the oid or database name, please run:

```
pg_database_size(oid)
```

Or

```
pg_database_size(databasename)
```

VSAM: Check the size of the VSAM file using traditional file info commands:

ls -hl to get the size of file in a directory for Linux/Mac

dr (file_name) to get the size of individual file for Windows

MySQL/MariaDB

```
SELECT (data_length+index_length)/power(1024,4) as dbsize
FROM information_schema.tables
WHERE table_schema='<schema_name>';
```

Reporting Instructions

Customer/End User Legal Name: _____

Usage Report

Reporting Period	Software Product	SKU	Usage (in TB)

Certification

The undersigned hereby certifies that the information provided hereunder is accurate.

On behalf of[Customer/End UserLegal Name]:

Signature:

Print Name:

Title:

Date:

ABOUT DELPHIX

Delphix's mission is to free companies from data friction and accelerate innovation. Fortune 100 companies use the Delphix Dynamic Data Platform to connect, virtualize, secure and manage data in the cloud and in on-premise environments. For more information visit www.delphix.com.

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