pydxAnalyze (v1.0)

Introduction

pydxAnalyze is a program created for customers to help them with capacity planning and performance troubleshooting. The output of DxAnalyze will be an auto generated PowerPoint with Graphical representation of the statistics. This tool is currently developed to work on Windows and Mac.

The Capacity Planning section of the report should help answering questions like:

• What is the real utilization of my engine for one week?

• What is the throughput/CPU available to add more objects (dSources/VDBs) on this engine?

• Do I need to evacuate some of the objects from this Engine?

The Metrics section is intended to help when there are performance issues or when additional details are needed on how a particular job/batch on the Delphix Engine ecosystem performed.

This is the list of metrics and stats DxAnalyze work with:

• CPU Utilization   • Network Throughput

• Disk Throughput   • NFS/iSCSI Throughput

• Disk IOPS   • Internal NFS/iSCSI Latency

• Disk Latency   • NFS/iSCSI Server Operations per Second

Delphix Professional services team supports pydxAnalyze. If you have any problem with the utility please visit Delphix Community (community.delphix.com) or the GitHub page: **https://github.com/delphix/dxanalyze**

How to Use it

pydxAnalyze code is embedded in an Python Code as well as Docker Container.

Method 1

Python based pydxanalyze code:

• Download code from pydxanalyze folder of github repository.

• Install python packages as per requirements.txt.

The latest version of pydxanalyze can be downloaded from **https://github.com/delphix/dxanalyze**

Method 2

pydxanalyze code is embedded in docker container. This is the simplest method if you have docker installed.

• Install docker.

• Follow instructions as per Instructions.md from Docker folder of github repository.

The latest version of DxAnalyze can be downloaded from **https://github.com/delphix/dxanalyze**

1.0 DXTOOLKIT- RUN DX_GET_ANALYTICS

DxToolkit is a great tool developed by Professional Services team. It has already pre-coded almost all capabilities that you can perform on the GUI and it's a great tool for automation. We use DxToolkit to extract analytics from the engine, to later analyze them with DxAnalyze.

DxToolkit has been recently open sourced and you can review/download it on **https://github.com/delphix/dxtoolkit**. You can also download it already compiled for specific platforms here: **https://github.com/delphix/dxtoolkit/releases**

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We recommend engaging Professional Services Technical Consultant to do the DxToolkit first implementation on your environment if it wasn't done when the DE was deployed, but the process is anyway very simple now:

- Download the DxToolkit from the links above for your Platform.

  Create a dxtools.conf file (you will find an example with the rest of the scripts) and add all your Delphix Engines

- Run dx_get_analytics to extract data from the engine stored with one minute granularity as follows:

  - dx_get_analytics -all -t all -i 60 -outdir .

- Optionally you can run this to gather 1sec granularity data, which is stored in the engine for 6 hours to do deeper analysis. Currently, the process will work but the capacity graphs will be empty, because we just have one point. The metrics section will be created (More updates to c ome in future releases)

  - dx_get_analytics -all -t all -i 1 -outdir .

- Optionally you can run this to gather 1-hour granularity data, which is stored in the engine for 30 days. This will give us 1 month of data with 1-hour granularity. DXAnalyze will create both Capacity and Metrics section. Because of the granularity, the Capacity section can be meaningful but the Metrics may not give us a real vision of what happened on the engine because we just have one data point per hour, and might not be accurate.

  - dx_get_analytics -all -t all -i 1 -outdir .

- Additional help on dx_get_analytics can be viewed as below:

  - dx_get_analytics –help

- After the analytics tool is run, it will generate raw data excel files

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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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