FACTSHEET

DXAnalyze (v8)

Introduction

DXAnalyze 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 during 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
- Disk Throughput
- Disk IOPS
- Disk Latency
- Network Throughput
- NFS/iSCSI Throughput
- Internal NFS/iSCSI Latency
- NFS/iSCSI Server Operations per Second

Delphix Professional services team supports DxAnalyze. 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

DxAnalyze code is embedded in an Excel file as a Macro. 2 files compose it:

- Dxanalyze_v8.xlsb
- Engine_analysis_Template_v8.pptm

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

1.0 PREREQUISITES

- DxToolkit needs to be downloaded and Configured
- Microsoft Excel and Powerpoint software must be installed on the machine where you want to run DxAnalyze (only available right now for Mac and Windows)
- Enable Powerpoint libraries on Excel. The steps are listed below and needs to be performed only once:
    - Open MS Excel to begin with
    - Select Tools from Menu
    - Click on Macro
    - Go to 'Visual Basic Editor' and Select
    - Again go to Tools

2.0 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**

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 and put it in Mission Control machine or in any Target.
- 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

3.0 DXANALYZE PREPARATION

Copy both the dxanalyze_v8.xlsb and Engine_Analysis_Template_v8.pptm into the location where the raw data (csv files generated with dx_get_analyze) excel files are located.

4.0 DXANALYZE EXECUTION

- Open the dxanalyze_v8.xlsb excel file and when prompted accept Enable Macros option.
- The excel will prompt you for the engine name you want to generate the DXAnalyze report. So enter the engine name. If it does not prompt you for the engine name execute the program or select Option + K and enter the engine name.
- The program starts executing generating the data and charting graphs. Wait until it confirms that the 'Process is Completed'.
- Go to the folder and there would be few files generated, the files of interest are 2 files. One is excel file 'engine_name_analysis.xls' where you have data and graphs in excel format. The other file is 'engine_name_analysis.pptx' which is a power point representation of graphs and data.
- Next step would be to analyze these outputs generated by DxAnalyze to see where the issues are.

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