



File analytics

NetApp Solutions

NetApp
October 20, 2023

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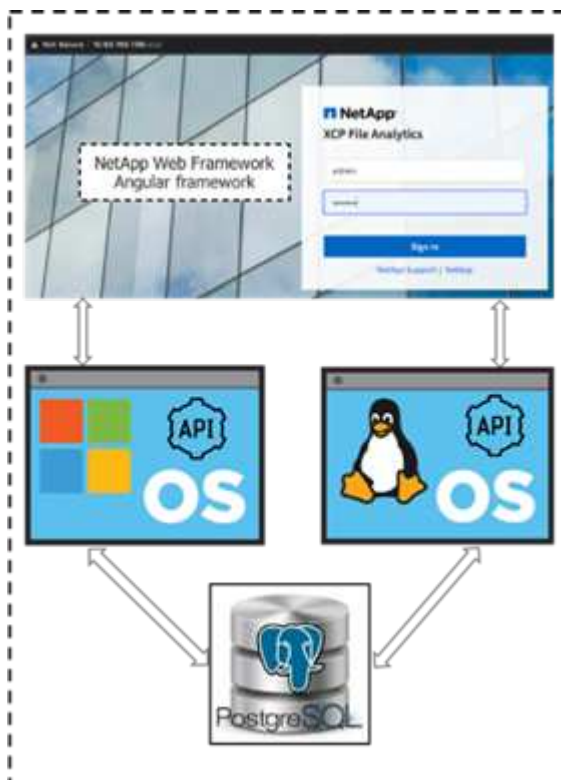
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File analytics

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The NetApp XCP file analytics GUI helps to run file system scans by using XCP at the back end and visualizing statistics such as graphs and views for any NAS (NFS, SMB) file system. Starting in 1.6, XCP can be run as a service with the help of simple deployment steps by using the Configure and systemctl options. The XCP Configure option guides you to install and configure Postgres and a web server as well as collect credentials. The systemctl option runs XCP as a service for REST API communications from the GUI.

The following figure illustrates the XCP file analytics flow.



For more information about the high-level architecture of XCP file analytics, GUI-based dashboard views such as stats view, and file distribution view details, see the blog post [NetApp XCP 1.6 Delivers Open File Analytics and Infrastructure Improvements](#).

There is a limited GUI in XCP 1.6 for customized graphs. To create the required graphs, you can use the CLI to run the `xcp scan` command with matching filters. See the following examples.

1. Generate a list of files modified beyond a year by using `xcp scan` and the `-match` filter with the space consumed.

```

[root@ch-vm-cent7-2 linux]# ./xcp scan -match "modified > 1*year" -l -q
192.168.89.110:/ifs/data_for_analysis > modified_morethan_year
XCP 1.6P1; (c) 2020 NetApp, Inc.; Licensed to Karthikeyan Nagalingam
[NetApp Inc] until Wed Sep  9 13:19:35 2020

xcp: WARNING: CPU count is only 1!

Filtered: 1 did not match

Xcp command : xcp scan -match modified > 1*year -l -q
192.168.89.110:/ifs/data_for_analysis
5,055 scanned, 5,054 matched, 0 error
Speed          : 1.10 MiB in (510 KiB/s), 110 KiB out (49.5 KiB/s)
Total Time    : 2s.
STATUS        : PASSED
[root@ch-vm-cent7-2 linux]#
[root@ch-vm-cent7-2 linux]# cat modified_morethan_year
rwxr-xr-x --- 7056 503          0      512  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/6/_SUCCESS
rwxr-xr-x --- 7056 503        270 8.50KiB  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/6/part-r-00000
rw-r--r-- --- 7056 503          0      512  7y58d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/6/SUCCESS.crc
rw-r--r-- --- 7056 503        270 8.50KiB  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/6/out_original
rw-r--r-- --- 7056 503        270 8.50KiB  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/6/out_sorted
rwxr-xr-x --- 7056 503          0      512  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/2/_SUCCESS
rwxr-xr-x --- 7056 503         90 8.50KiB  7y99d
data_for_analysis/benchmarks/benchmarks/udf_TOBAGandTOTUPLE_7_benchmark.
out/2/part-r-00000
...
< console output removed due o page space size >
...

```

2. Find the space used by files that are more than one year old.

```

[root@ch-vm-cent7-2 linux]# ./xcp -du -match "modified > 1*year"

```

```

192.168.89.110:/ifs/data_for_analysis/
XCP 1.6.1; (c) 2020 NetApp, Inc.; Licensed to Karthikeyan Nagalingam
[NetApp Inc] until Wed Sep  9 13:19:35 2020
xcp: WARNING: CPU count is only 1!
52.5KiB
data_for_analysis/benchmarks/benchmarks/Macro_Scope_1_benchmark.out
28.5KiB
data_for_analysis/benchmarks/benchmarks/CollectedGroup_6_benchmark.out
28.5KiB data_for_analysis/benchmarks/benchmarks/Foreach_11_benchmark.out
153KiB
data_for_analysis/benchmarks/benchmarks/SecondarySort_9_benchmark.out
412KiB
data_for_analysis/benchmarks/benchmarks/CoGroupFlatten_6_benchmark.out
652KiB data_for_analysis/benchmarks/benchmarks/Iterator_1_benchmark.out
652KiB
data_for_analysis/benchmarks/benchmarks/LoaderDefaultDir_1_benchmark.out
652KiB data_for_analysis/benchmarks/benchmarks/Order_4_benchmark.out
28.5KiB
data_for_analysis/benchmarks/benchmarks/MapPartialAgg_4_benchmark.out/2
28.5KiB
data_for_analysis/benchmarks/benchmarks/CastScalar_11_benchmark.out/2
1.29MiB data_for_analysis/benchmarks/benchmarks/Order_18_benchmark.out
652KiB
data_for_analysis/benchmarks/benchmarks/FilterBoolean_5_benchmark.out
20.5KiB
data_for_analysis/benchmarks/benchmarks/Macro_DefinitionAndInline_5_benchmark.out/2
628KiB data_for_analysis/benchmarks/benchmarks/Types_29_benchmark.out
...
< console output removed due o page space size >
...
3.18MiB data_for_analysis/benchmarks/benchmarks/hadoop10
340KiB data_for_analysis/benchmarks/benchmarks/Split_5_benchmark.out
5.90GiB data_for_analysis/benchmarks/benchmarks
6.56GiB data_for_analysis/benchmarks
6.56GiB data_for_analysis

Filtered: 488 did not match

Xcp command : xcp -du -match modified > 1*year
192.168.89.110:/ifs/data_for_analysis/
Stats          : 5,055 scanned, 4,567 matched
Speed          : 1.10 MiB in (1.36 MiB/s), 110 KiB out (135 KiB/s)
Total Time    : 0s.
STATUS        : PASSED
[root@ch-vm-cent7-2 linux]#

```

3. Find the total size and graphical view of data that was modified more than one year ago.

```
[root@ch-vm-cent7-2 linux]# ./xcp -stats -match "modified > 1*year"
-html 192.168.89.110:/ifs/data_for_analysis/ >
modified_morethan_year_stats.html
XCP 1.6.1; (c) 2020 NetApp, Inc.; Licensed to Karthikeyan Nagalingam
[NetApp Inc] until Wed Sep 9 13:19:35 2020

xcp: WARNING: CPU count is only 1!

Xcp command : xcp -stats -match modified > 1*year -html
192.168.89.110:/ifs/data_for_analysis/
Stats       : 5,055 scanned, 4,567 matched
Speed       : 1.10 MiB in (919 KiB/s), 110 KiB out (89.1 KiB/s)
Total Time  : 1s.
STATUS      : PASSED
[root@ch-vm-cent7-2 linux]#
```

The following report is a custom example scan of files that were modified more than one year ago.

Command **scan** 192.168.89.110:/ifs/data_for_analysis

Options '-stats': True, '-match': 'modified > 1*year'

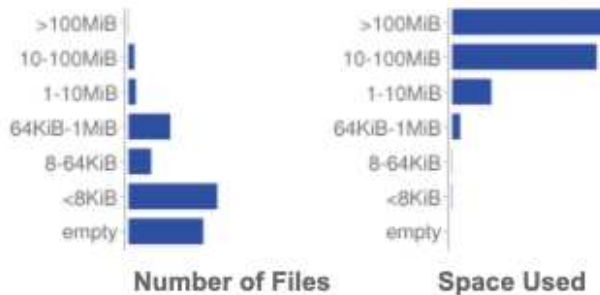
Unreadable directories None Unreadable files None

Filters: Unmatched None

Summary 5,055 scanned, 4,567 matched, 1.10 MiB in (924 KiB/s), 110 KiB out (89.7 KiB/s), 1s.

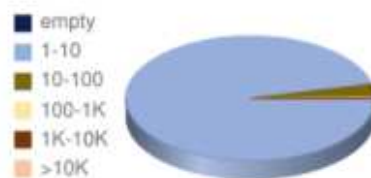
	Count	Used		Avg	Max
All File Types	4,567	6.56 GiB	Name Length	14	52
Regular Files	3,894	6.56 GiB	File Size	1.72 MiB	678 MiB
Directories	673	2.75 MiB	Directory Entries	7	1,463
Symlinks	None	0	File Depth	3	6
Specials	None	0			

7056 4,567
Top 5 File Owners

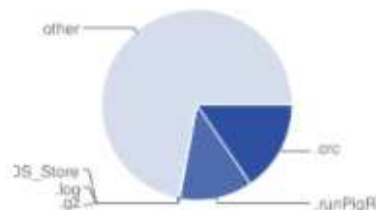


7056 6.56 GiB
Top 5 Space Users

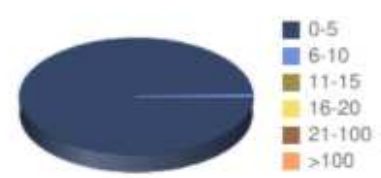
N/A Dedupe Estimate N/A Zero Blocks 0 Hard Links 6 Extensions 1 Groups 1 Users



Directory Entries



Extension Types



File Depth



03-Aug-2020 03:46 PM EDT

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xcp 1.6.1

Next: [Deployment steps](#).

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