

ESE-ERGO

Achievements – (3) Metrics Application

[Short version]



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Final Presentation FP
Teleconference, 28 May 2021

- Context
- GUI interface
- Interface with TellUs (FTP)
- Conclusion

Context

- CEOS Requirements
- CWIC Server Metrics

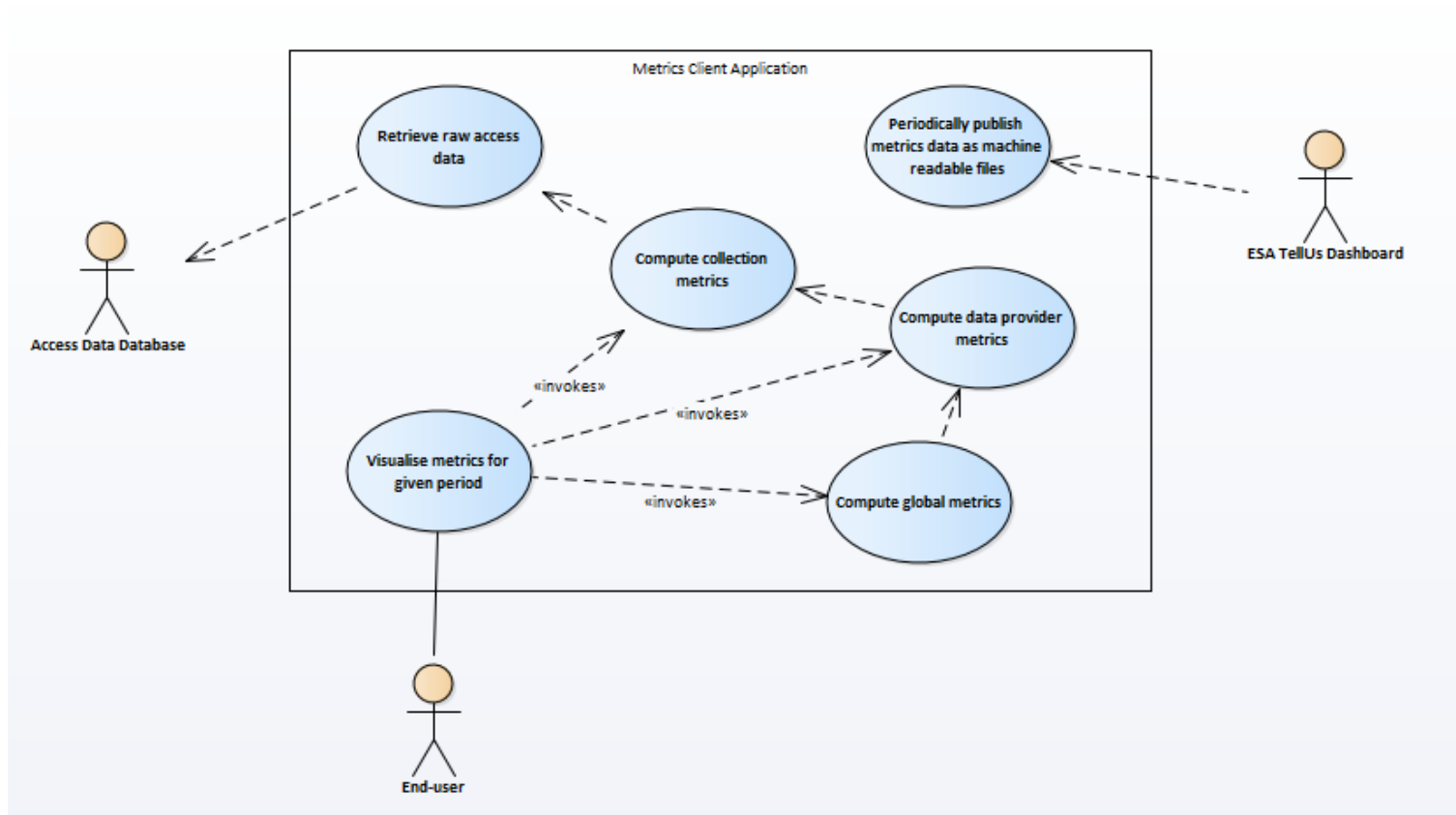


- CEOS WGISS SLT defined
 - Global Core Metrics
 - Data Provider Core Metrics
 - Collection core Metrics

Table 2: Global core metrics

#	Metrics	Users	Purpose	Scope
5	Total number of queries per given period	U, M	U	A
6	Total number of queries on OSDD per given period	U, M	U	A
7	Total number of queries on record search per given period	U, M	U	A
8	Total number of queries on specific ID per given period	U, M	U	A
9	Deleted.	U, M	U	
14	Total number of success queries per given period	S,M	Q	A
15	Total number of failed queries per given period	S,M	Q	A
16	Minimum response time on record search per given period	S,M	Q	A
17	Maximum response time on record search per given period	S,M	Q	A

- Main use cases and actors



Metrics client application

- Packaged for deployment on kubernetes
- New SCF document for Kubernetes cluster installation, including configuration to collect metrics via NGINX.

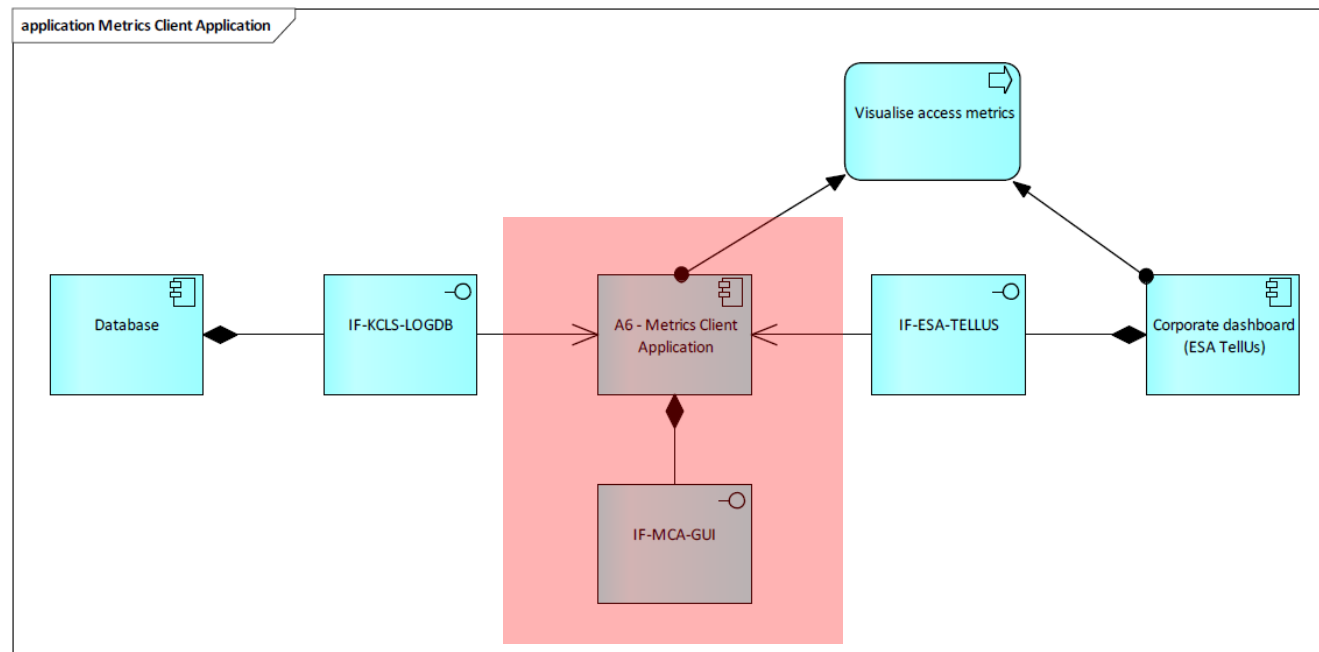
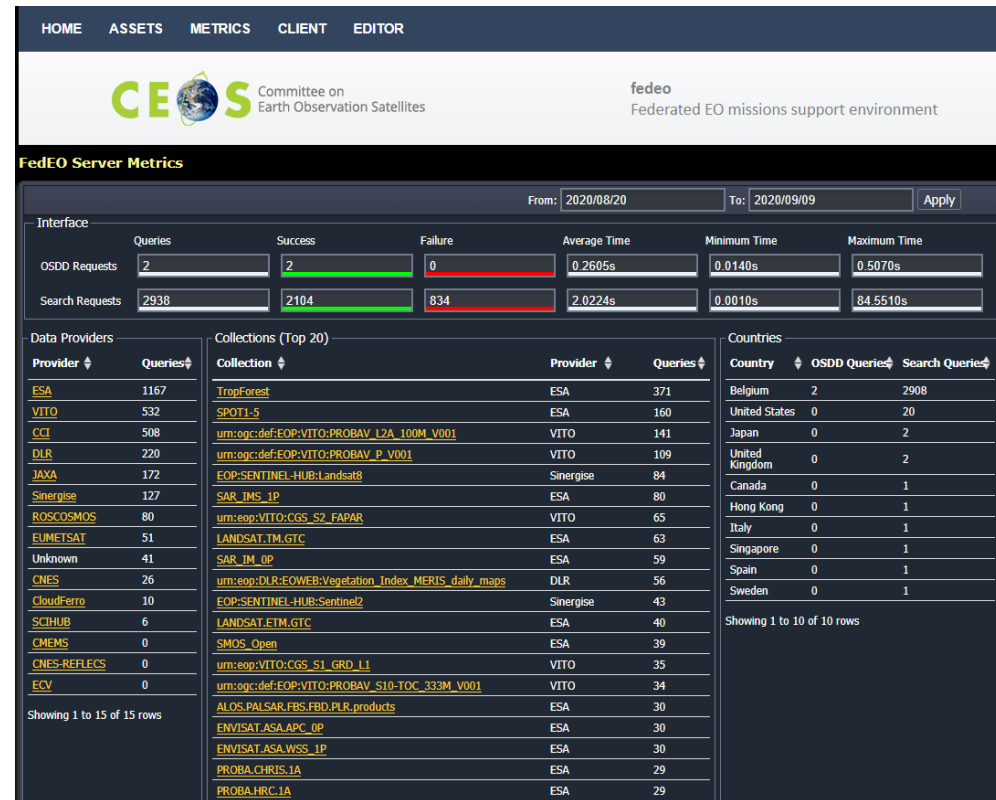


Figure 4: Metrics Client Application Context diagram

Web interface FedEO Metrics



- CEOS data access metrics
- Web interface deployed in test environment.



- <https://ergo.spacebel.be/metrics/>

Metrics client application



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FedEO Server Metrics

From: 2021/01/02 To: 2021/01/22

Interface

	Queries	Success	Failure	Average Time	Minimum Time	Maximum Time
OSDD Requests	19	14	5	0.2501s	0.0050s	1.4610s
Search Requests	22821	18293	4528	4.3811s	0.0000s	90.0910s

Data Providers

Provider	Queries
CCI	7621
VITO	2970
DLR	2548
CMEMS	2441
JAXA	1747
ESA	1695
VITO-TERRASCOPE	958
Unknown	713
ROSCOSMOS	644
EUMETSAT	507
CNES	484
Sinergise	297
SCIHUB	146
CloudFerro	69

Collections (Top 20)

Collection	Provider	Queries
3ac333b828b54e3495c7749f5bce2fe3	CCI	907
95c6d610-ba36-11de-8a39-0800200c9a66	VITO	511
urn:ogc:def:EOP:VITO:PROBAV_S1-TOC_333M_V001	VITO	447
urn:eop:VITO:CGS_S2_LAI	VITO	394
ENVISAT.ASA.APV_OP	ESA	340
EOP:CNES:PEPS:S1	CNES	322
8381d3f3998143fd9b53c7086b7061e3	CCI	308
bdf2cf5a78554a73bf5e57a853e3bbc0	CCI	279
EOP:SENTINEL-HUB:Landsat8	Sinergise	274
a0d9764a3068439b997c42928ef739d2	CCI	254
ccbeb356a88847058159049678fe5c35	CCI	249
723067f77b8b43609079d721e3b4a3c7	CCI	247
8d475d7d92894765ad1dda16de0e610	CCI	239
urn:eop:VITO:CGS_S1_GRD_L1	VITO-TERRASCOPE	236

Countries

Country	OSDD Queries	Search Queries
Belgium	8	18732
United States	10	4052
Germany	0	34
Ireland	1	0
Canada	0	3

Showing 1 to 5 of 5 rows

Provider Metrics



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FedEO Server Metrics > VITO

From: 2020/0

Interface

	Queries	Success	Failure	Average
OSDD Requests	0	0	0	0.000
Search Requests	532	527	5	2.436

Collections

Collection	Provider	Que
urn:ogc:def:EOP:VITO:PROBAV_L2A_100M_V001	VITO	141
urn:ogc:def:EOP:VITO:PROBAV_P_V001	VITO	109
urn:eop:VITO:CGS_S2_FAPAR	VITO	65
urn:eop:VITO:CGS_S1_GRD_L1	VITO	35
urn:ogc:def:EOP:VITO:PROBAV_S10-TOC_333M_V001	VITO	34
urn:eop:VITO:CGS_S2_RAD_L2	VITO	29
urn:ogc:def:EOP:VITO:PROBAV_S1-TOA_100M_V001	VITO	21
95c6d610-ba36-11de-8a39-0800200c9a66	VITO	19
urn:ogc:def:EOP:VITO:PROBAV_S1-TOC_333M_V001	VITO	12
urn:eop:VITO:CGS_S2_LAI	VITO	4
575240da-5fbc-486e-bf69-80655d059ff4	VITO	3
urn:eop:VITO:CGS_S1_GRD_SIGMA0_L1	VITO	3
urn:eop:VITO:CGS_S1_SLC_L1	VITO	3
urn:eop:VITO:CGS_S2_FCOVER	VITO	3
urn:eop:VITO:CGS_S2_NDVI	VITO	3
urn:ogc:def:EOP:VITO:PROBAV_L2A_1KM_V001	VITO	3
urn:ogc:def:EOP:VITO:PROBAV_L2A_333M_V001	VITO	3
urn:ogc:def:EOP:VITO:PROBAV_S1-TOA_1KM_V001	VITO	3
urn:ogc:def:EOP:VITO:PROBAV_S1-TOA_333M_V001	VITO	3
urn:ogc:def:EOP:VITO:PROBAV_S1-TOC-NDVI_100M_V001	VITO	3

Showing 1 to 20 of 31 rows

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FedEO Server Metrics > ESA

From: 2021/04/01

To: 2021/05/20

Apply

Interface

	Queries	Success	Failure	Average Time	Minimum Time	Maximum Time
OSDD Requests	5	5	0	2.0876s	0.0220s	3.7970s
Search Requests	79312	78936	376	0.2915s	0.0000s	17.4330s

Collections

Collection	Provider	Queries
TropForest	ESA	35518
ENVISAT.ASA.APS_1P	ESA	22873
ALOS.PALSAR.FBS.FBD.PLR.products	ESA	18114
MER_FRS_2P	ESA	1679
ENVISAT.ASA.APV_0P	ESA	43
PROBA.CHRIS.1A	ESA	37
ENVISAT.ASA.APC_0P	ESA	34
SeaSat.ESA.archive	ESA	32
Deimos-1.and.2.ESA.archive	ESA	31
OceanSat-2.NRT.data	ESA	31
ENVISAT.ASA.APH_0P	ESA	30
IKONOS.ESA.archive	ESA	29
IRS-1.archive	ESA	29
ENVISAT.ASA.IMP_1P	ESA	28
NRT_Open	ESA	28
SAR_IMP_1P	ESA	28
SAR_JMS_1P	ESA	28
AUX_Dynamic_Open	ESA	27
ENVISAT.ASA.APP_1P	ESA	27
ENVISAT.ASA.IMS_1P	ESA	27

Showing 1 to 20 of 147 rows

< 1 2 3 ... 8 >

Countries


Country	OSDD Queries	Search Queries
Belgium	1	79285
United States	4	27

Showing 1 to 2 of 2 rows

Collection Metrics



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 Committee on Earth Observation Satellites

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FedEO Server Metrics > JAXA > GPM_DPR_L3S_D3M_03C


From: 2021/04/30 To: 2021/05/20 [Apply](#)

Interface

	Queries	Success	Failure	Average Time	Minimum Time	Maximum Time
OSDD Requests	0	0	0	0.0000s	0.0000s	0.0000s
Search Requests	98	98	0	1.3084s	1.1050s	8.2990s

Countries	
Country	OSDD Queries
United States	0
Belgium	0
Showing 1 to 2 of 2 rows	

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 Committee on Earth Observation Satellites

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FedEO Server Metrics > ESA > ENVISAT.ASA.APV_0P

From: 2021/04/30 To: 2021/05/20 [Apply](#)

Interface

	Queries	Success	Failure	Average Time	Minimum Time	Maximum Time
OSDD Requests	0	0	0	0.0000s	0.0000s	0.0000s
Search Requests	39	39	0	0.0858s	0.0200s	0.3610s

Countries

Country	OSDD Queries	Search Queries
Belgium	0	32
United States	0	7
Showing 1 to 2 of 2 rows		

Client IDs

Client ID	OSDD Queries
No matching records found	

- FTP Push interface
 - Three daily files (.CSV)

```

├── DWHDATA_FEDE_TOTL_20210519T000000Z.dat
├── DWHDATA_FEDE_TOTL_20210518T000000Z.dat
├── DWHDATA_FEDE_QUER_20210519T000000Z.dat
├── DWHDATA_FEDE_QUER_20210518T000000Z.dat
├── DWHDATA_FEDE_OSDD_20210519T000000Z.dat
└── DWHDATA_FEDE_OSDD_20210518T000000Z.dat
    
```

```

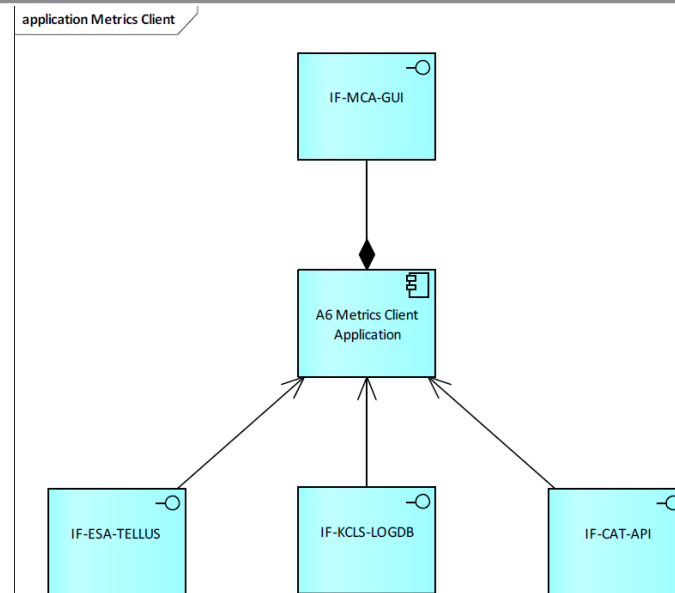
#HEADER|FEDE_TOTL|2021-05-19T00:00:00Z|2021-05-19T00:00:00Z|
2021-05-19T23:59:59Z|
480
#FOOTER|2021-05-19T23:59:59Z
    
```

```

#HEADER|FEDE_OSDD|2021-05-19T00:00:00Z|2021-05-19T00:00:00Z|2021-05-19T23:59:59Z|
#FOOTER|2021-05-19T23:59:59Z
    
```

```

#HEADER|FEDE_QUER|2021-05-19T00:00:00Z|2021-05-19T00:00:00Z|2021-05-19T23:59:59Z|
'EOP:ROSCOSMOS','BE','ROSCOSMOS','29';
'001aab54-295d-4fb3-b269-748b8e0b9a04','BE','DLR','3';
'EOP:SENTINEL-HUB:Landsat8','US','Sinergise','3';
'1ab66621-5bb0-45b1-a0ad-a5caa263f366','BE','DLR','2';
'200ff3bf37d744a48b48cb2e3565cace','BE','CCI','2';
'302f379334e84664bd3409d08eca6565','BE','CCI','2';
'42f7230ab55641cdac1bba84eabd446a','BE','CCI','2';
'ENVISAT.ASA.APV_0P','US','ESA','2';
'ENVISAT.ASA.APV_0P','BE','ESA','2';
'urn:ogc:def:EOP:VITO:PROBAV_S1-TOC_333M_V001','BE','VITO','2';
'urn:ogc:def:EOP:VITO:PROBAV_S10-TOC_333M_V001','BE','VITO','2';
'urn:ogc:def:EOP:VITO:PROBAV_S5-TOC_100M_V001','BE','VITO','2';
'004fd44ff5124174ad3c03dd2c67d548','BE','CCI','1';
'00a0da5d759d4d69ae866a23b84011be','BE','CCI','1';
    
```



FedEO Server Metrics

From: 2021/05/19

Interface

	Queries	Success	Failure	Average Time
OSDD Requests	0	0	0	0.0000s
Search Requests	480	415	65	1.6354s

Data Providers

Provider	Queries
CCI	183
DLR	49
ESA	47

Collections (Top 20)

Collection	Provider	Queries
EOP:ROSCOSMOS	ROSCOSMOS	29
ENVISAT.ASA.APV_0P	ESA	4
EOP:SENTINEL-HUB:Landsat8	Sinergise	4

- Daily files currently pushed on FTP server..

Local site: D:\Working\ese-ergo\logs-metric\reports\ Remote site: /metrics/reports

- reports
- spring-boot-crud
- trunk
- metric_server
- metric_server_bk
- solr-7.2.1
- springboot-primefaces

- metrics
- reports
- svs-reports

Filename	Filesize	Filetype	Last modified	Permissi...	Owner/G...
DWHDATA_FEDE_QUER_20210512T000000Z.dat	21.258	DAT File	05/17/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210512T000000Z.dat	115	DAT File	05/17/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210513T000000Z.dat	167	DAT File	05/18/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210513T000000Z.dat	20.210	DAT File	05/18/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210513T000000Z.dat	115	DAT File	05/18/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210514T000000Z.dat	111	DAT File	05/19/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210514T000000Z.dat	20.305	DAT File	05/19/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210514T000000Z.dat	115	DAT File	05/19/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210515T000000Z.dat	111	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210516T000000Z.dat	167	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210517T000000Z.dat	111	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210518T000000Z.dat	157	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_OSD_20210519T000000Z.dat	111	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210515T000000Z.dat	20.802	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210516T000000Z.dat	20.632	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210517T000000Z.dat	20.672	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210518T000000Z.dat	21.521	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_QUER_20210519T000000Z.dat	21.701	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210515T000000Z.dat	115	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210516T000000Z.dat	115	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210517T000000Z.dat	115	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210518T000000Z.dat	116	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp
DWHDATA_FEDE_TOTL_20210519T000000Z.dat	115	DAT File	05/20/21 04:00:00	-rw-r--r--	ftp ftp

55 files. Total size: 10.135 bytes

Selected 1 file. Total size: 115 bytes

- Software deployed @Spacebel since mid 2020.
 - Metrics agreed in CEOS SLT are available for all collections from all partners accessed by the Gateway/Catalogue
 - Designed for use with “instance-1” (multi-provider). Compatible with “instance-2” as well (mono-provider).
 - Is to be used in combination with ESE-ERGO endpoint. Use with “old” gateway requires different fluentd config (syntax of search requests to extract “parentIdentifier” slightly different).
 - Requires extended K8S Cluster config (NGINX).
- Interface with TellUs



- Software available on GitHub
 - <https://github.com/spacebel/MCA>
- Contacts
 - Yves.Coene@spacebel.be
 - Marc.Gilles@spacebel.be