

DMP Implementation Status of IPP

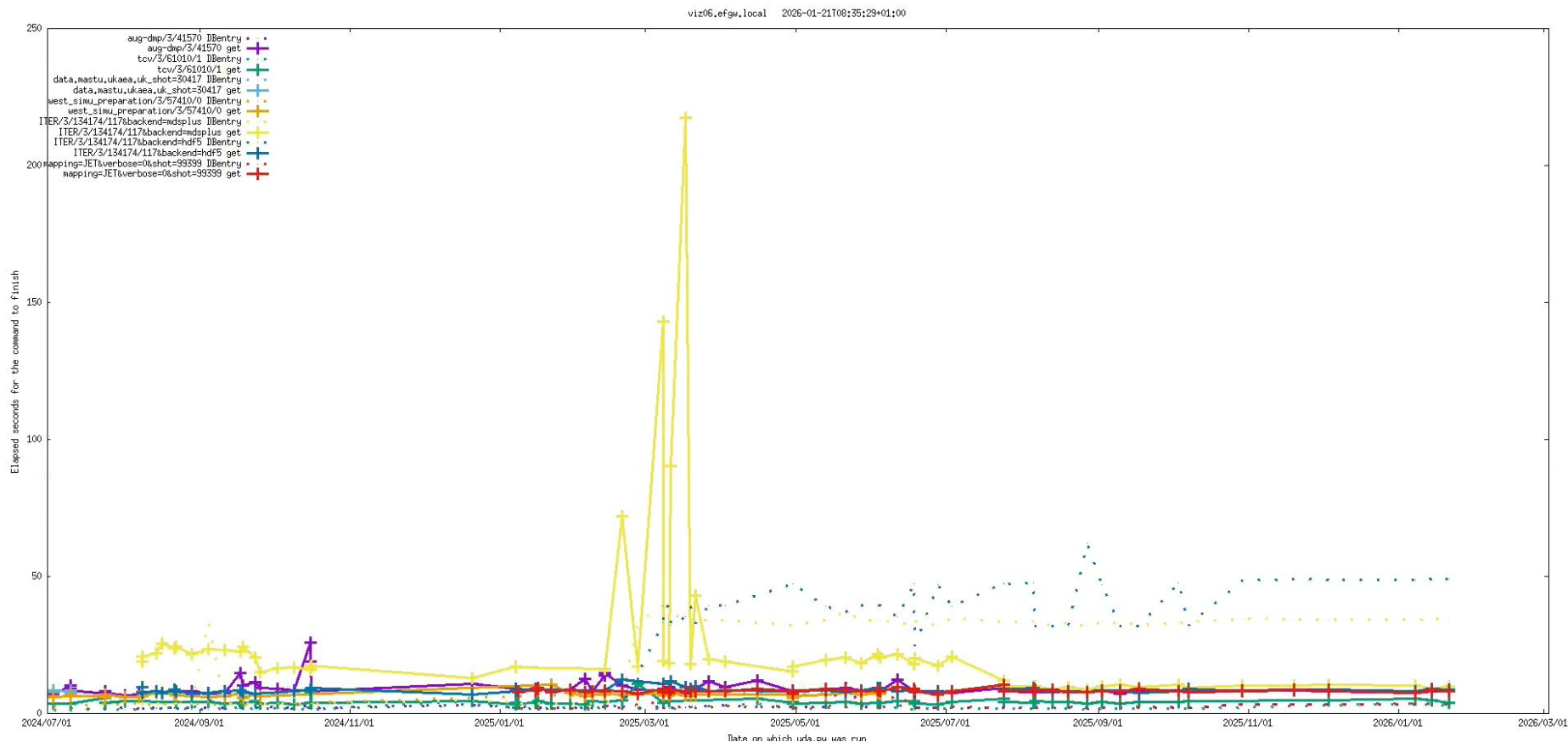
2025-01-21

IMAS versions updated on the TOK and Citrix systems

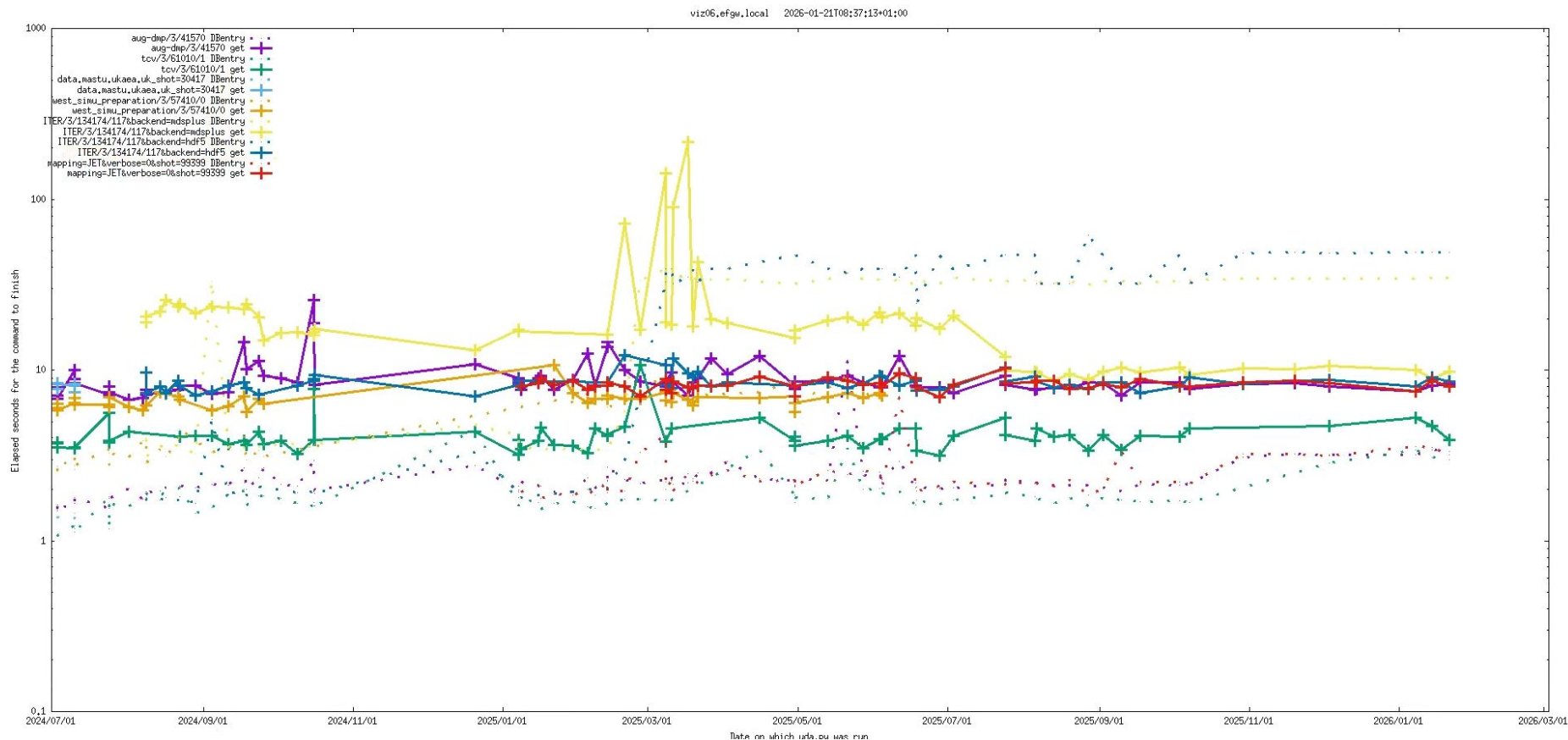
DD	AL	TOK cluster	Horizon system
3.38.1	4.11.4		2023-06-08
3.39.0	4.11.5	2023-07-26	2023-07-31
3.39.0	5.0.0	2023-10-10	
3.41.0	4.11.10	2024-04-17	
3.41.0	2024.07-foss-2023b		2024-08-11
3.42.0	2024.08-foss-2023b		2024-08-13
3.42.0	2024.08.1-foss-2023b	2024-08-23	2024-08-22
3.42.0	2024.08.1-intel-2023b	2024-08-23	2024-08-22
3.42.0	4.11.10		2024-10-09
3.42.0	2024.09-foss-2023b	2024-10-21	2024-10-21
3.42.0	2024.09-intel-2023b	2024-10-21	2024-10-21
4.0.0	2024.12-foss-2023b	2025-01-22	2025-01-22
4.0.0	2024.12-intel-2023b	2025-01-22	2025-01-22

- Entries in red have a problem after the cluster upgrade
 - Underlying python changed, together with numpy
 - Remove?

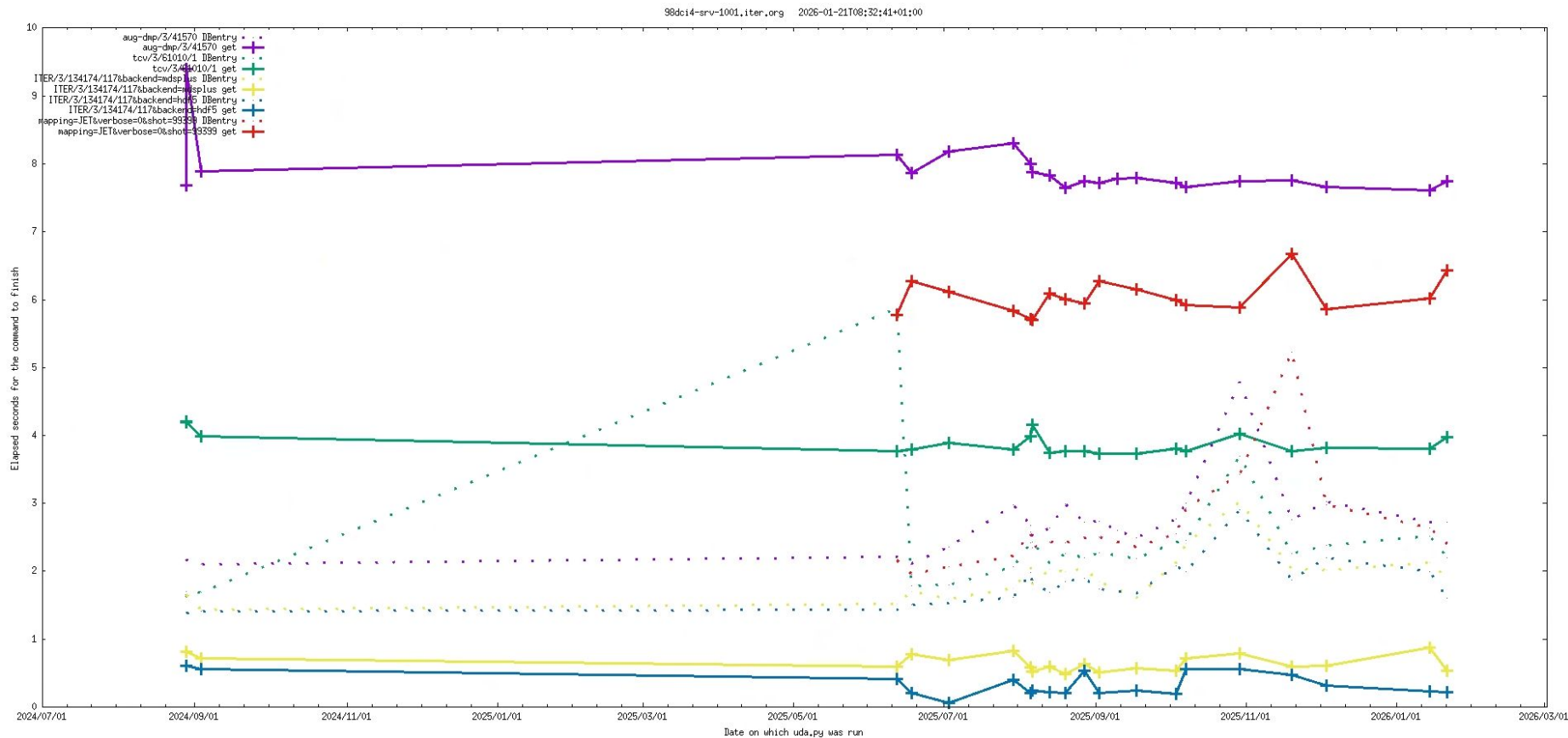
Data access times: run on Gateway



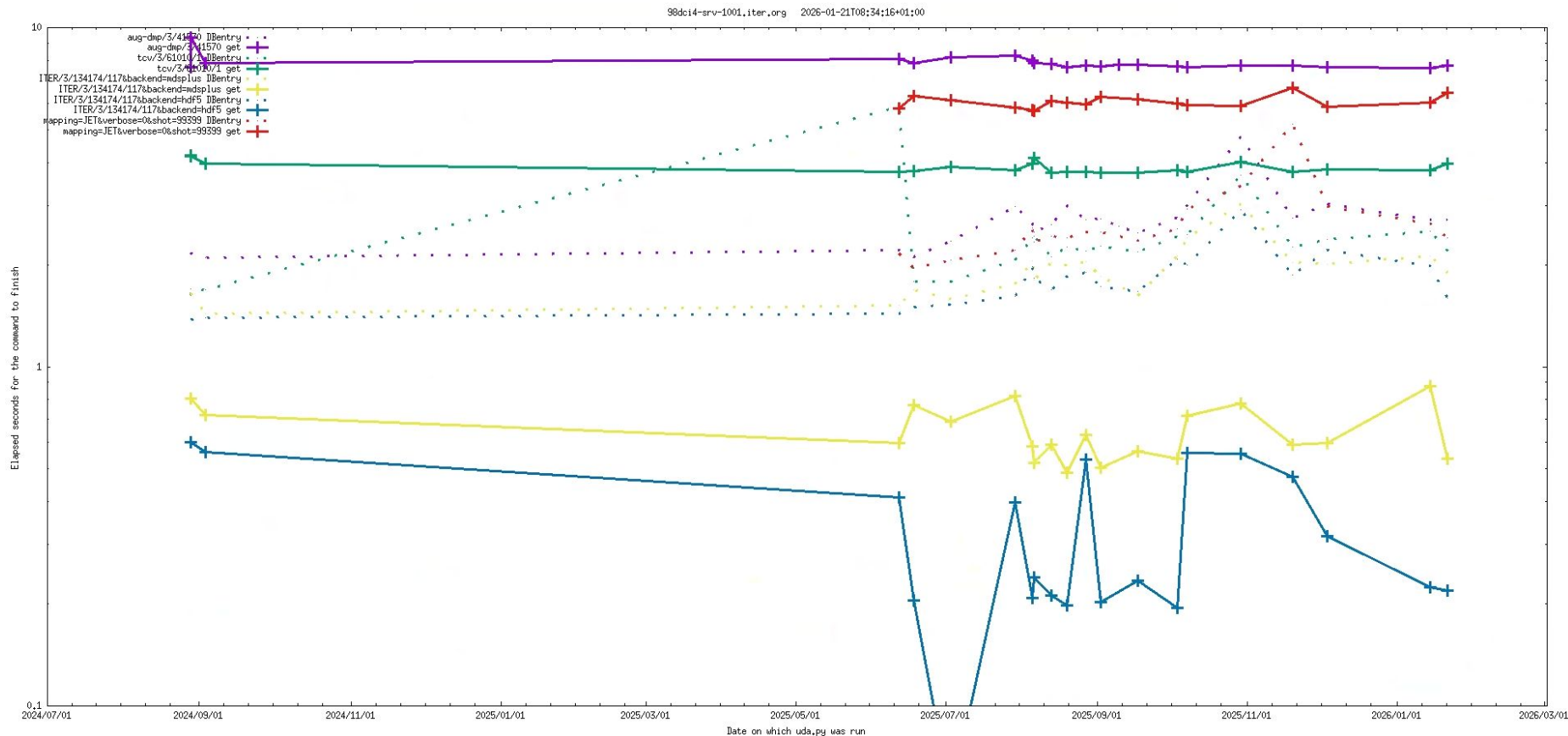
Data access times: run on Gateway



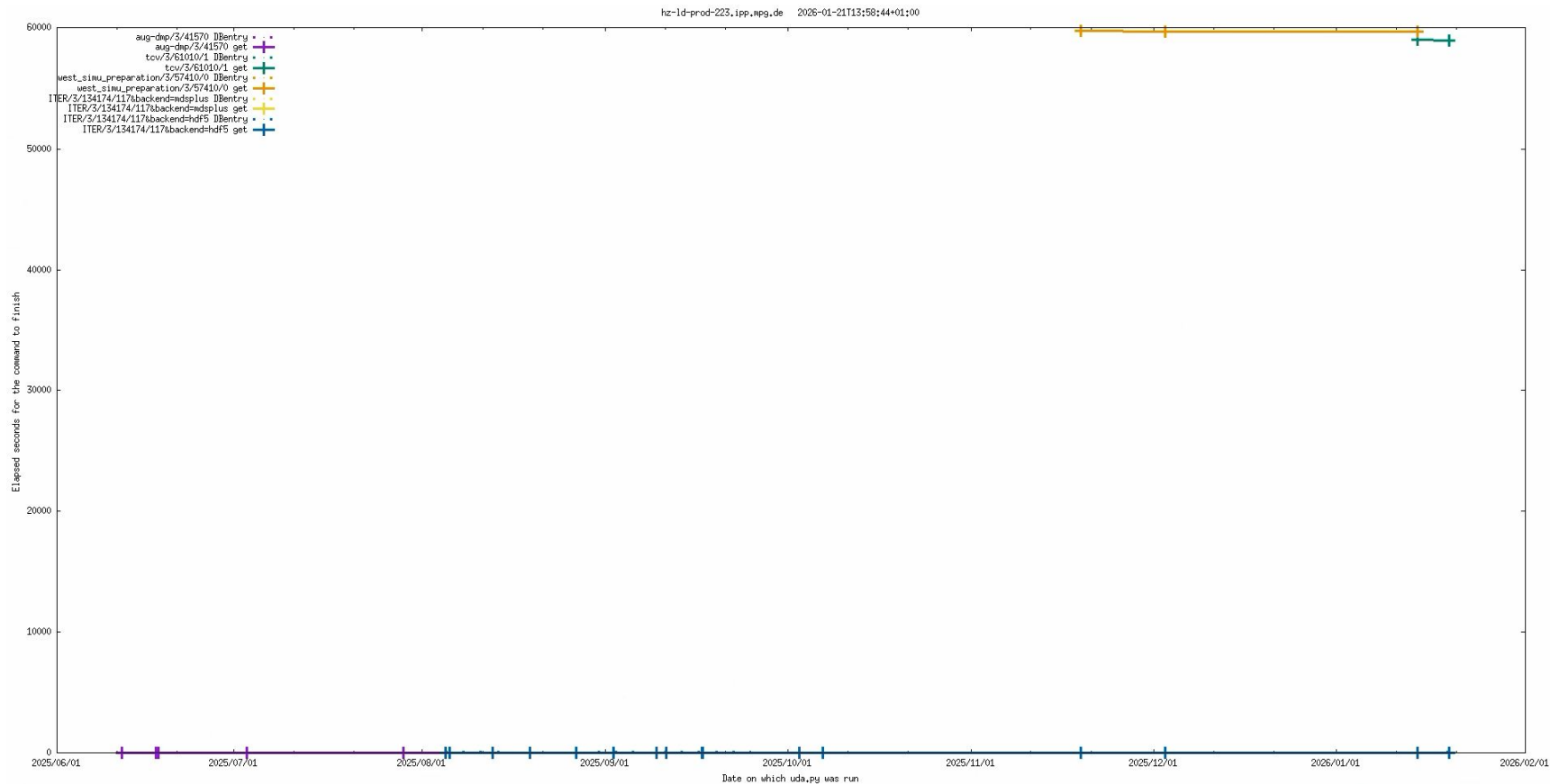
Data access times: run at ITER



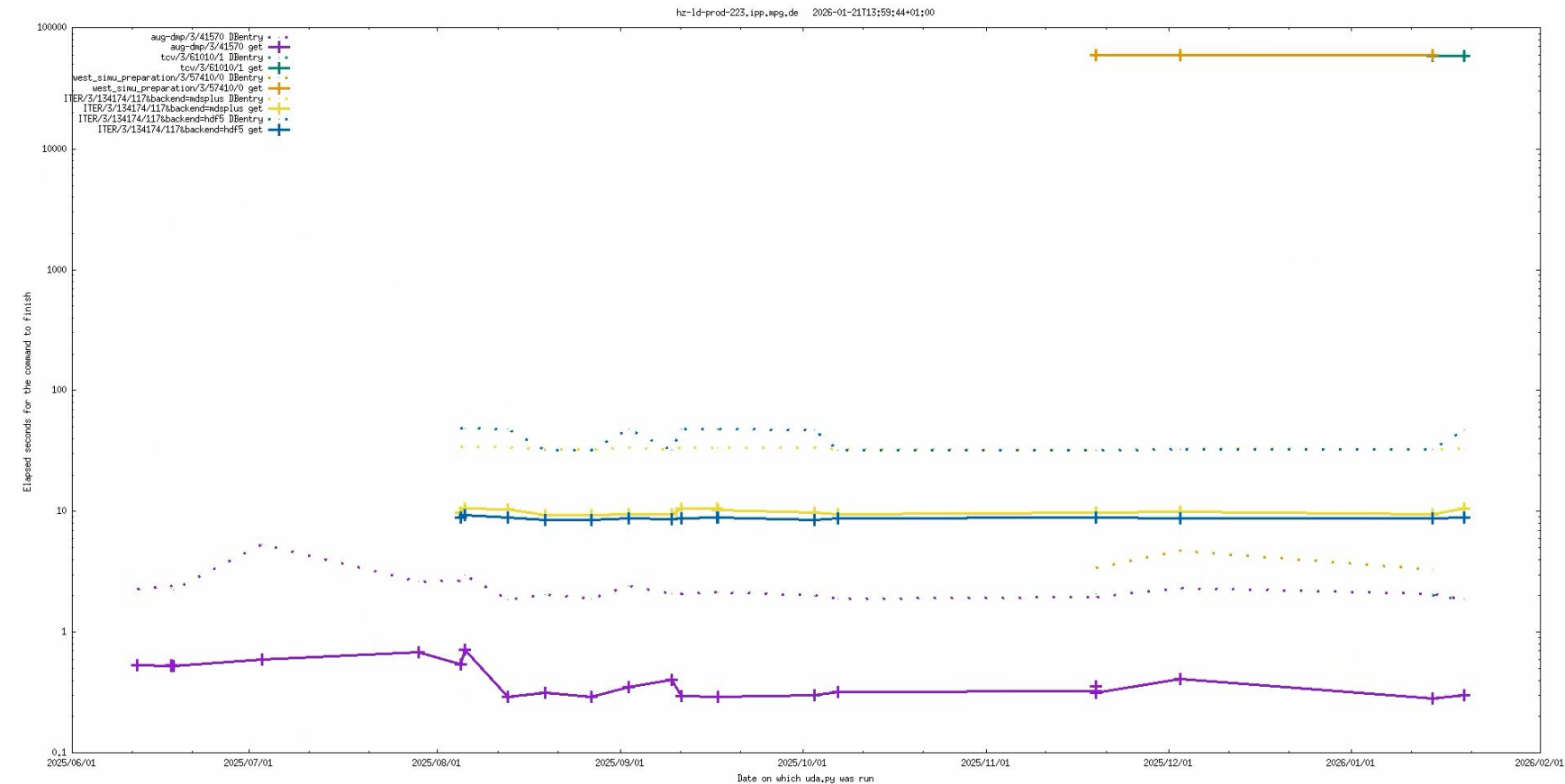
Data access times: run at ITER



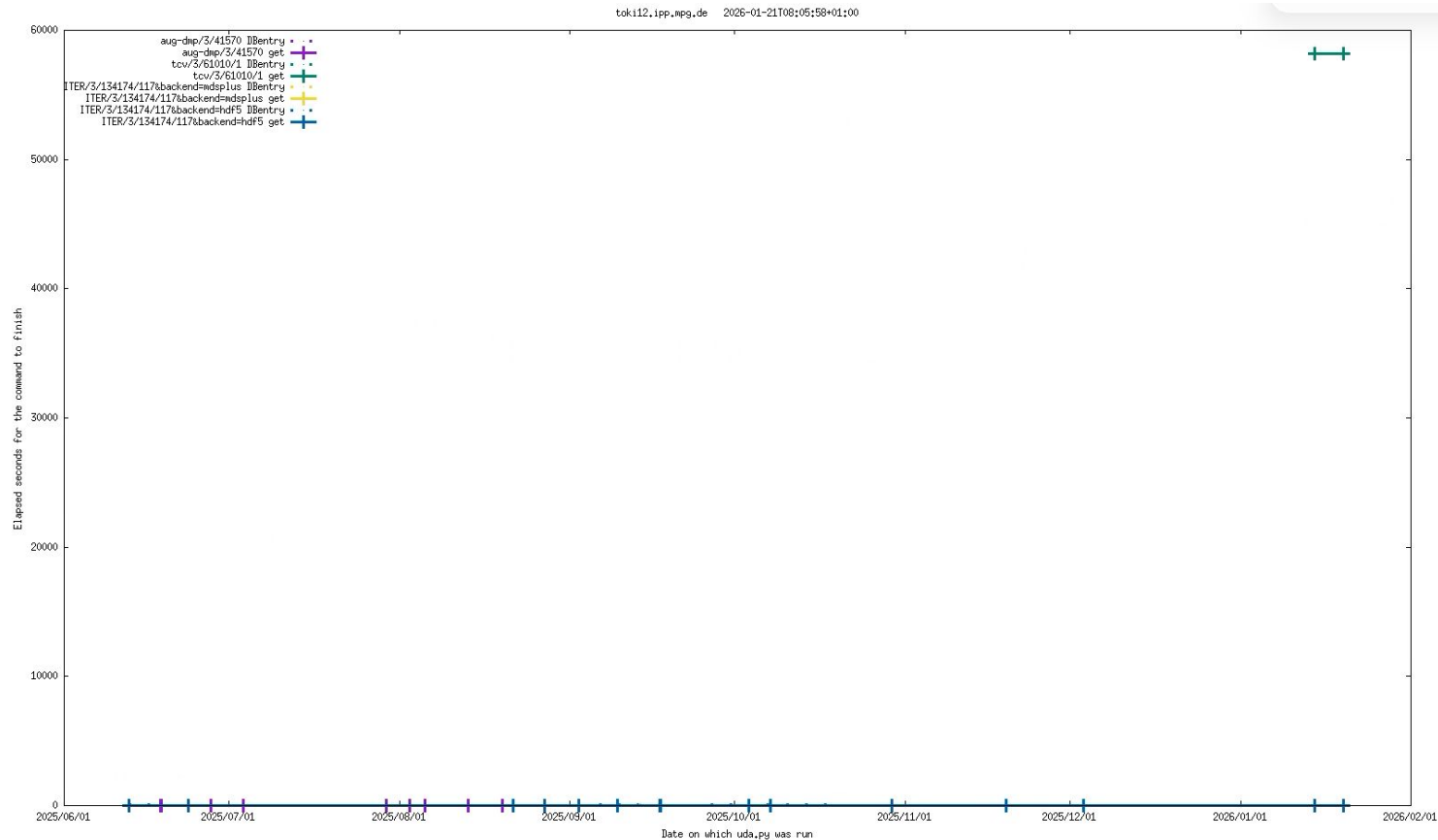
Data access times: run at IPP (horizon)



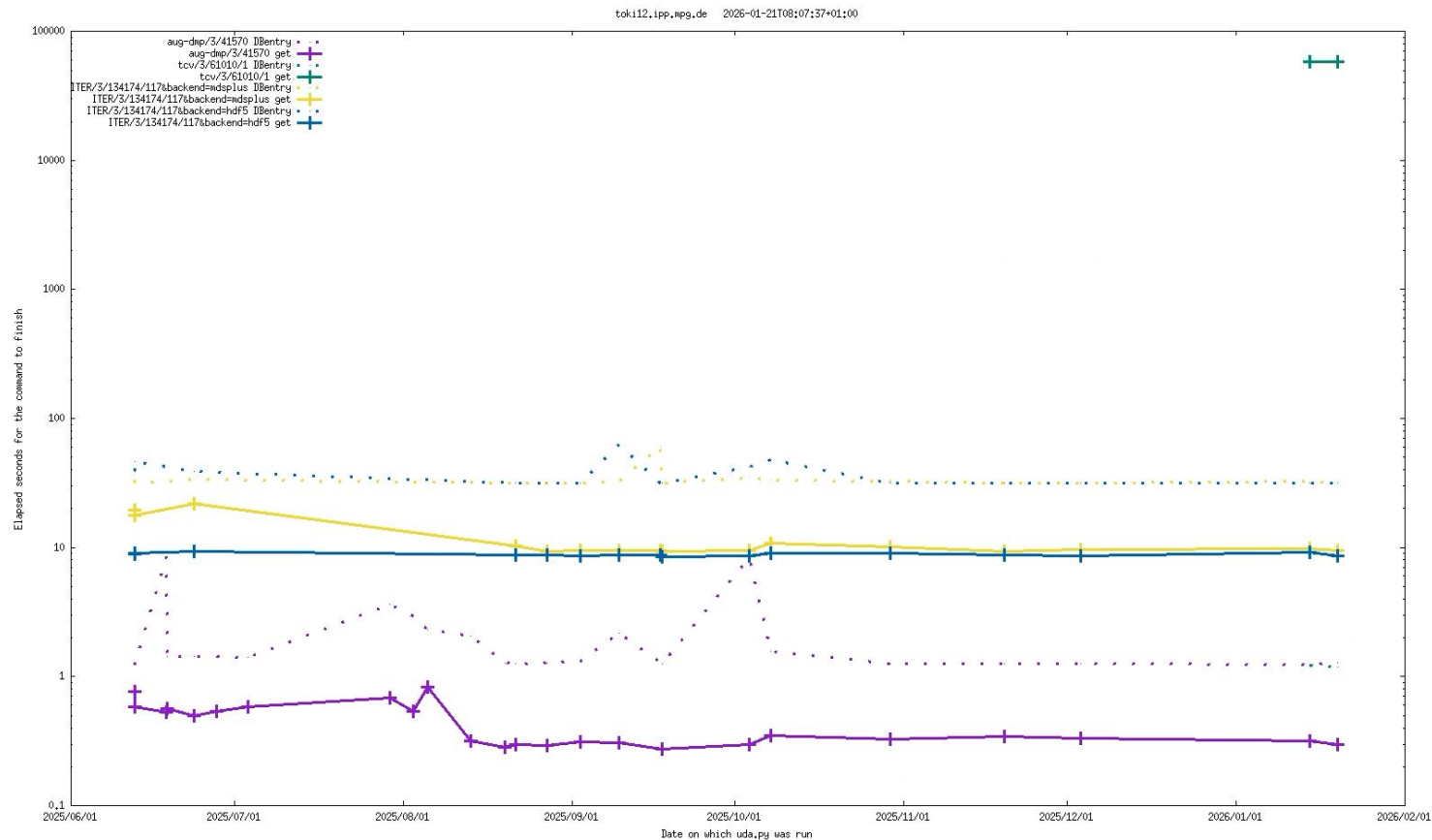
Data access times: run at IPP (horizon)



Data access times: run at IPP (TOK cluster)



Data access times: run at IPP (TOK cluster)



Access log from IPP (Horizon) [dataset_description IDS]

./uda.py -u

'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5' -d -c dataset_description

Accessing data from

imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5

Launch a subprocess with timeout to attempt to access the data

Successful return from subprocess with timeout to attempt to access the data

Execute DBentry call

Finished executing DBentry call

Execute get call

Finished executing get call

Time data for IDS dataset_description

[]

Timing information

DBentry = 3.353

get = 976.188

close = 0.925

Access log from IPP (Horizon) [dataset_description IDS]

```
./uda.py -u 'imas://irmf-uda.partenaires.cea.fr:8083/uda?path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5&verbose=1' -d -c dataset_description
```

Accessing data from imas://irmf-uda.partenaires.cea.fr:8083/uda?path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5&verbose=1

Launch a subprocess with timeout to attempt to access the data

Successful return from subprocess with timeout to attempt to access the data

Execute DBentry call

UDABackend constructor

UDA default plugin: IMAS

IMAS data dictionary version: 3.42.0

UDABackend supportsTimeDataInterpolation

UDABackend request: IMAS::version()

UDABackend openPulse

UDA server: irmf-uda.partenaires.cea.fr

UDA port: 8083

UDA plugin: IMAS

UDABackend request: IMAS::init()

UDABackend request: IMAS::open(uri='imas:hdf5?dd_version=3.42.0&path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0', mode='open')

Finished executing DBentry call

Execute get call

UDABackend beginAction

UDABackend readData:dataset_description/ids_properties/homogeneous_time

UDABackend request: IMAS::get(uri='imas:hdf5?dd_version=3.42.0&verbose=1&path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0', mode='open', dataObject='dataset_description', access='read', range='global', time=-999, interp='undefined', path='dataset_description/ids_properties/homogeneous_time', datatype='integer', rank=0, is_homogeneous=0, dynamic_flags=0, time_range_tmin=1.85676e-311, time_range_tmax=1.10969e-296, time_range_interp=3, dtime=-1)

UDABackend endAction

Finished executing get call

UDABackend closePulse

UDABackend request: IMAS::close(uri='imas:hdf5?dd_version=3.42.0&path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0', mode='close')

UDABackend endAction

UDABackend destructor

Time data for IDS dataset_description

[]

Timing information

DBentry = 3.431

get = 975.210

close = 0.918

Access log from IPP (Horizon) [dataset_description IDS]

./uda.py -u

'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&b
ackend=hdf5&verbose=1' -d -c dataset_description

Accessing data from

imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&b
ackend=hdf5&verbose=1

...

Execute get call

UDABackend beginAction

UDABackend readData:dataset_description/ids_properties/homogeneous_time

UDABackend request:

IMAS::get(uri='imas:hdf5?dd_version=3.42.0&verbose=1&path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation
/3/57410/0', mode='open', dataObject='dataset_description', access='read', range='global', time=-999, interp='undefined',
path='dataset_description/ids_properties/homogeneous_time', datatype='integer', rank=0, is_homogeneous=0, dynamic_flags=0,
time_range_tmin=1.85676e-311, time_range_tmax=1.10969e-296, time_range_interp=3, dtype=-1)

UDABackend endAction

Finished executing get call

...

Timing information

DBentry = 3.431

get = 975.210

close = 0.918

Access log from IPP (Horizon)

Accessing data from `imas://spcimasdata.epfl.ch:443/uda?path=/data/imas/public/imasdb/tcv/3/61010/1/&backend=mdsplus`

Available IDSes are: ['summary']

Timing information

DBentry = 1.880

get = 58972.921

close = 0.019

Accessing data from `imas://spcimasdata.epfl.ch:443/uda?path=/data/imas/public/imasdb/tcv/3/68340/2/&backend=mdsplus`

Available IDSes are: ['core_profiles', 'dataset_description', 'equilibrium', 'summary', 'tf']

Timing information

DBentry = 1.854

get = 58969.289

close = 0.019

Accessing data from

`imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/lmas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5`

[Still waiting]

Access log from IPP (TOK cluster)

Accessing data from

imas://spcimasdata.epfl.ch:443/uda?path=/data/imas/public/imasdb/tcv/3/61010/1/&backend=mdsplus

Available IDSes are: ['summary']

Timing information

DBentry = 1.186

get = 58217.868

close = 0.021

Accessing data from

imas://spcimasdata.epfl.ch:443/uda?path=/data/imas/public/imasdb/tcv/3/68340/2/&backend=mdsplus

Available IDSes are: ['core_profiles', 'dataset_description', 'equilibrium', 'summary', 'tf']

Timing information

DBentry = 1.305

get = 58223.913

close = 0.025

16.2 hours!