



EOSDIS

NASA'S EARTH OBSERVING SYSTEM
DATA AND INFORMATION SYSTEM

Cumulus: NASA Archives in the Cloud

2018 AGU

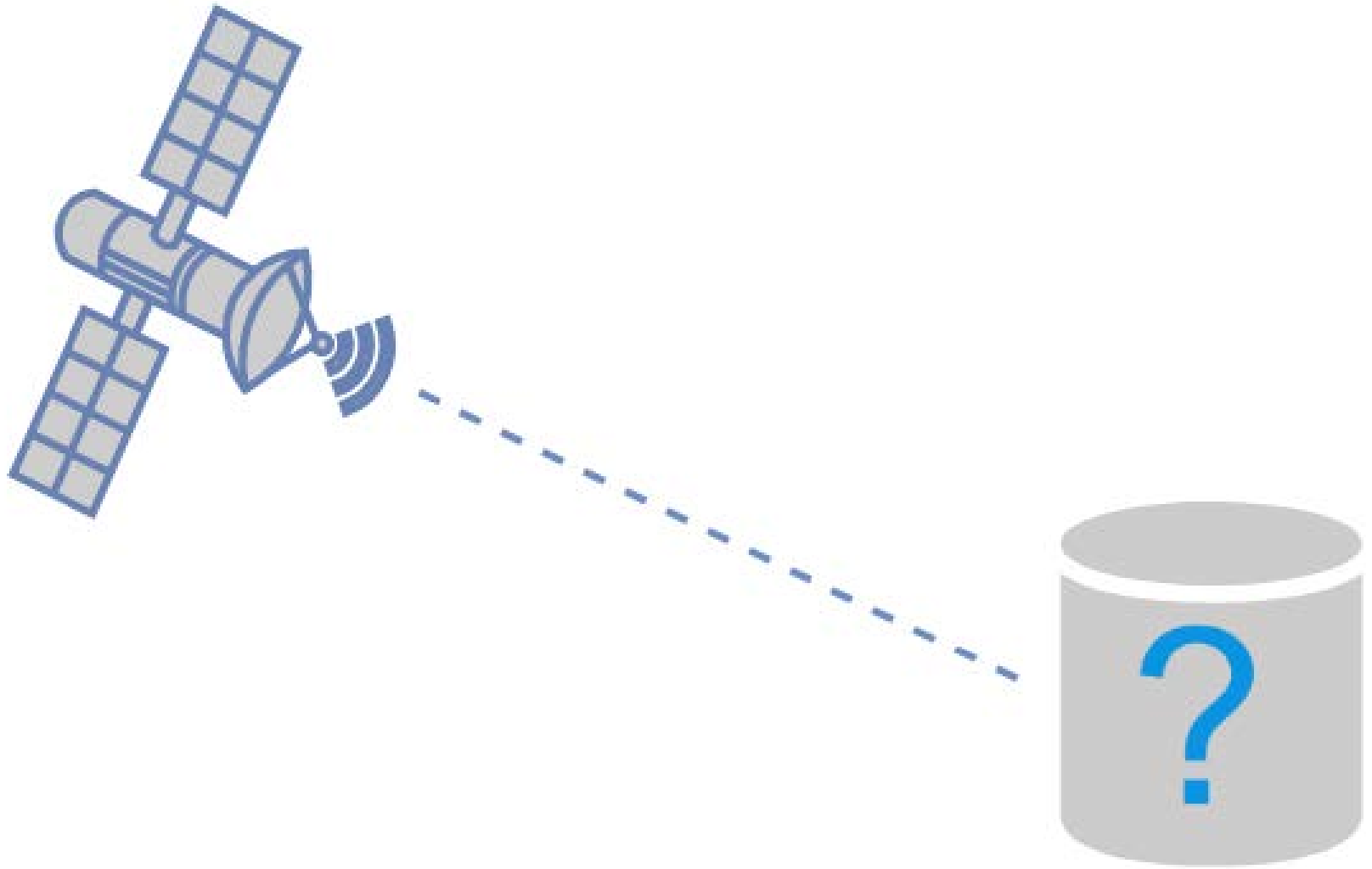
Lauren Frederick

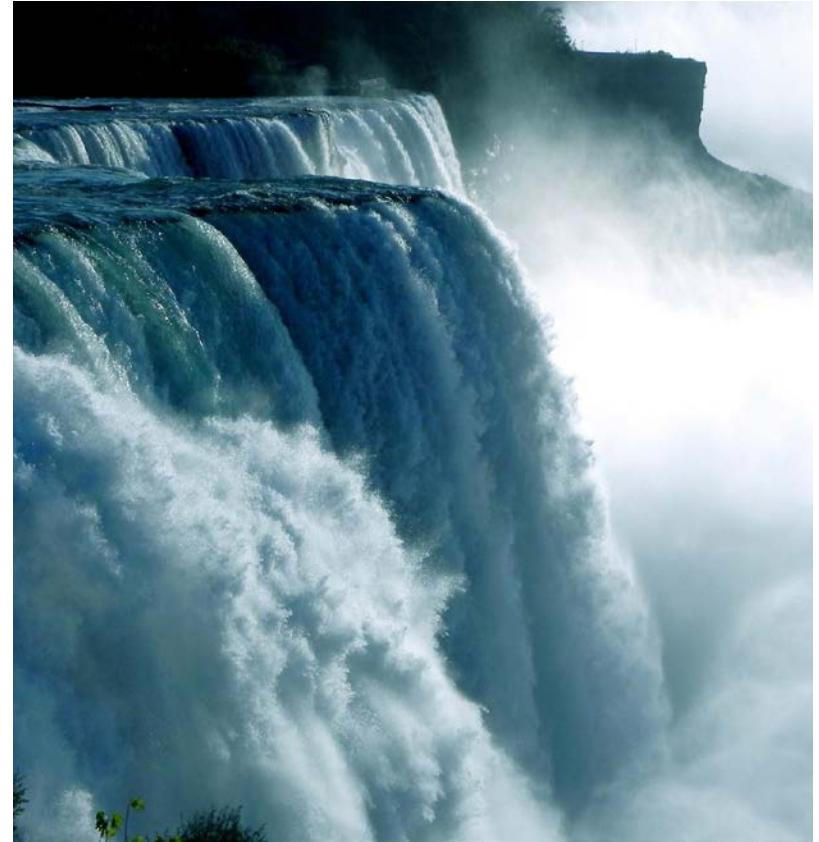
Cumulus Lead

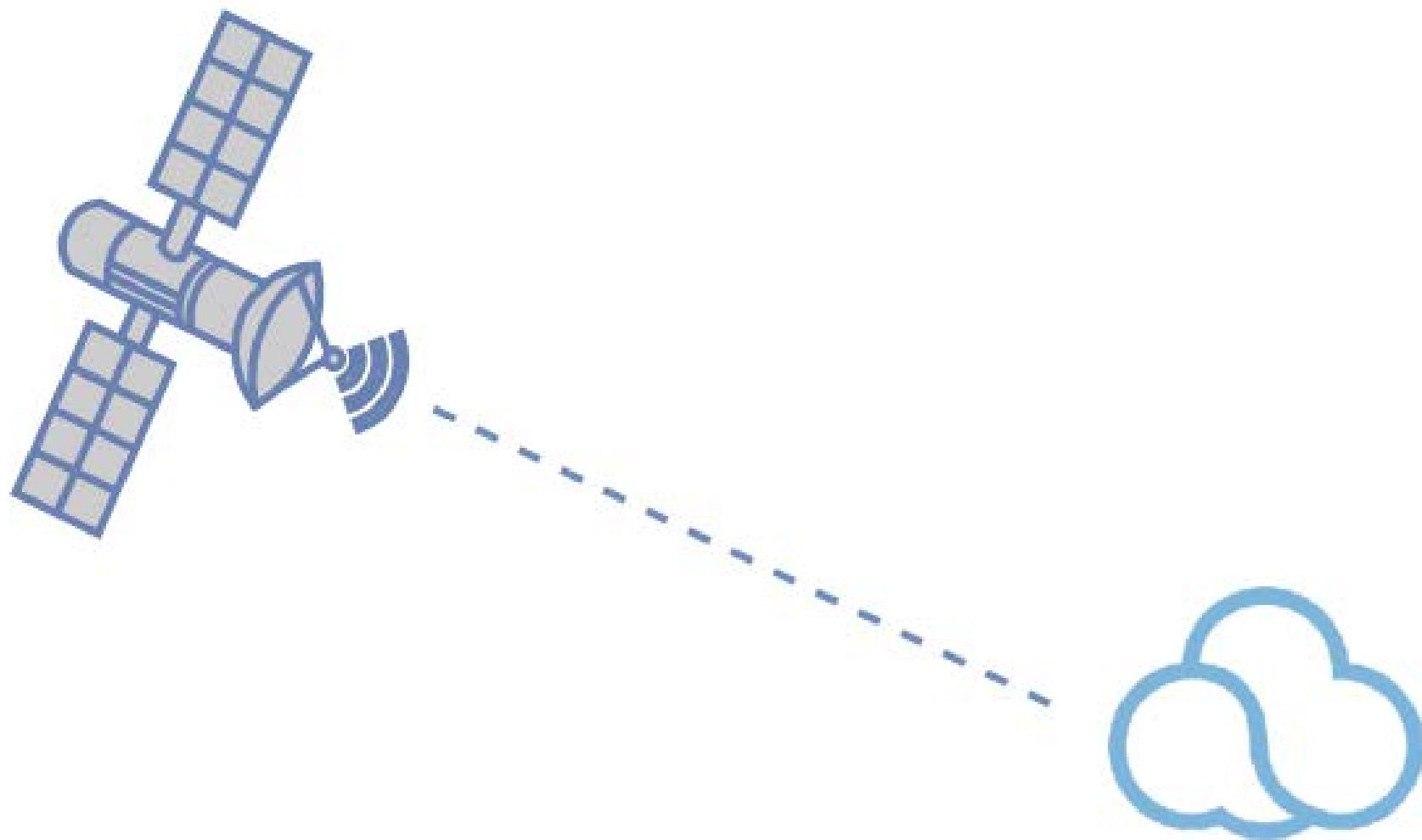
lauren@element84.com

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The Problem

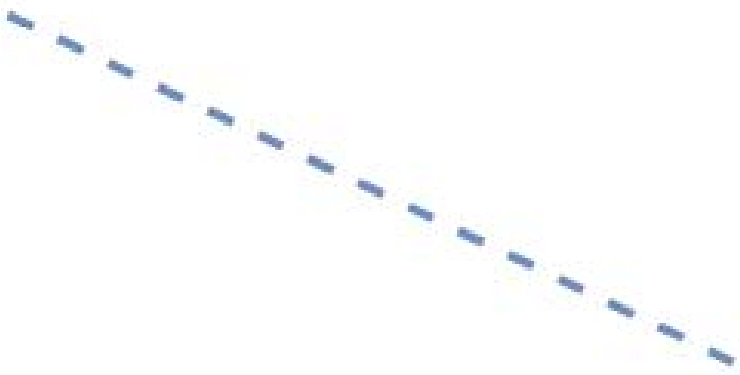
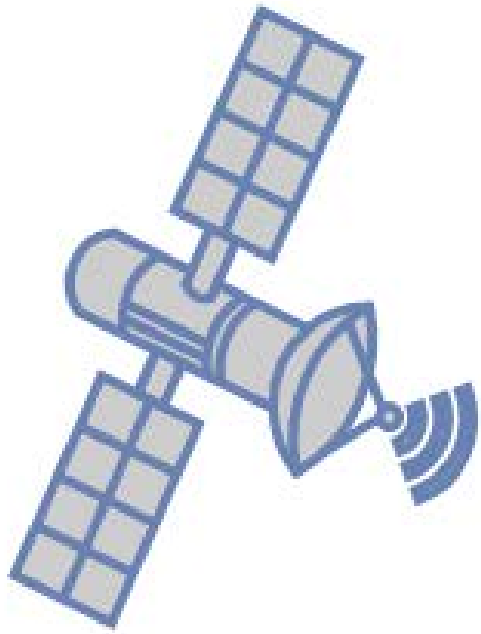






More than just storage



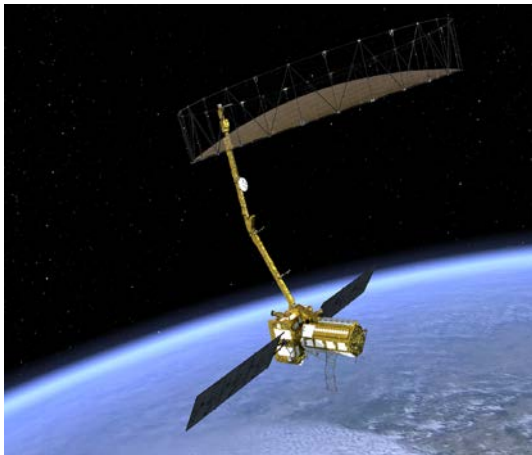


DAAC NGAP Account



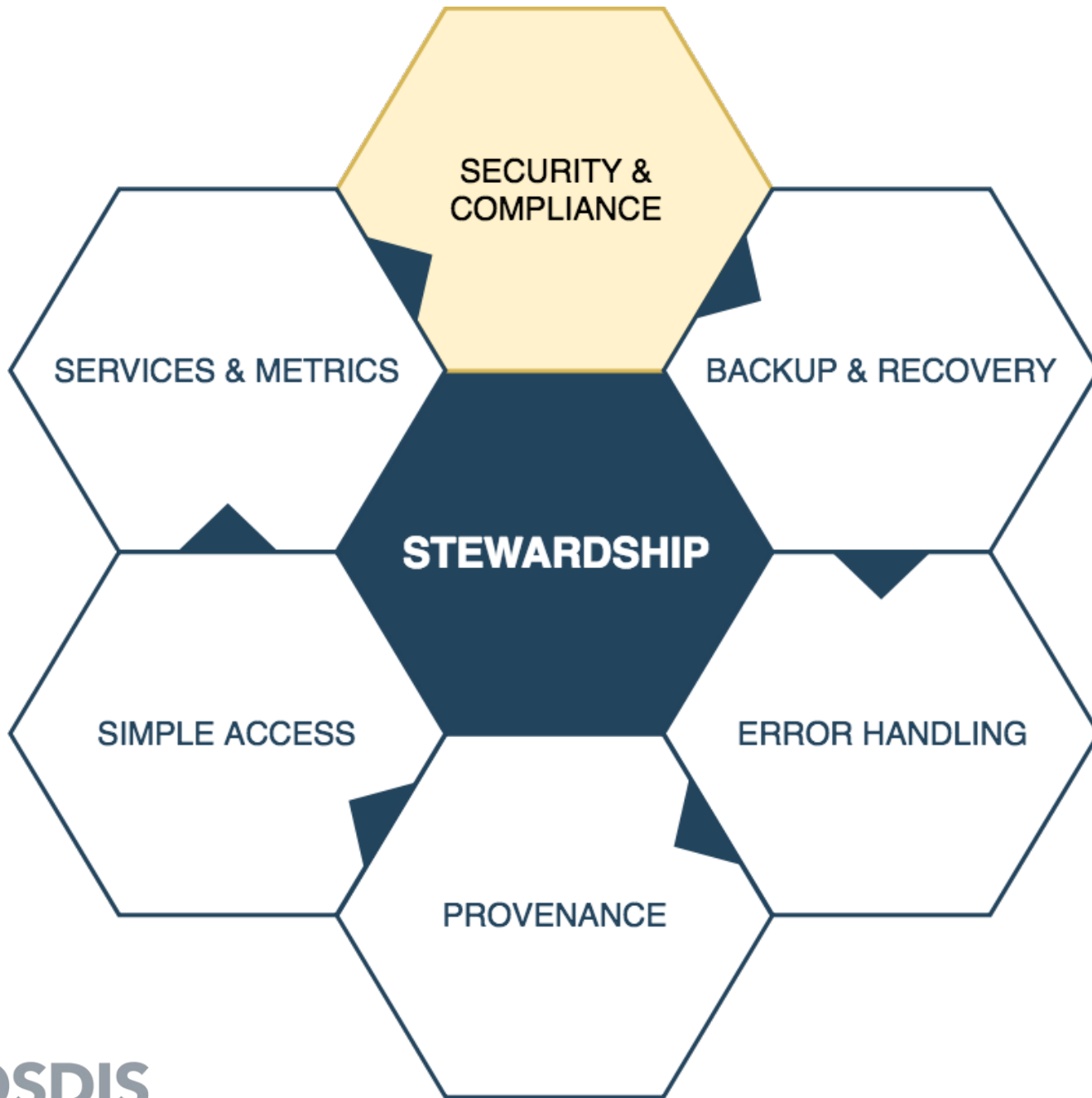


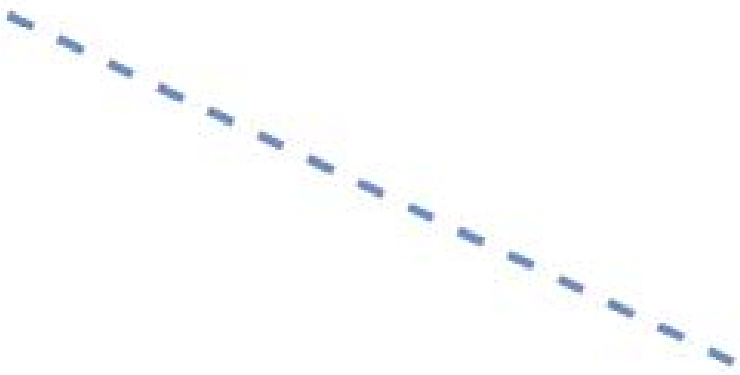
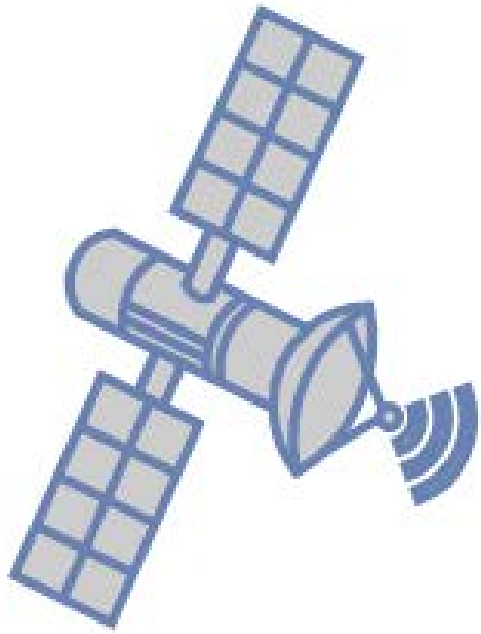
PO.DAAC NGAP



ASF NGAP

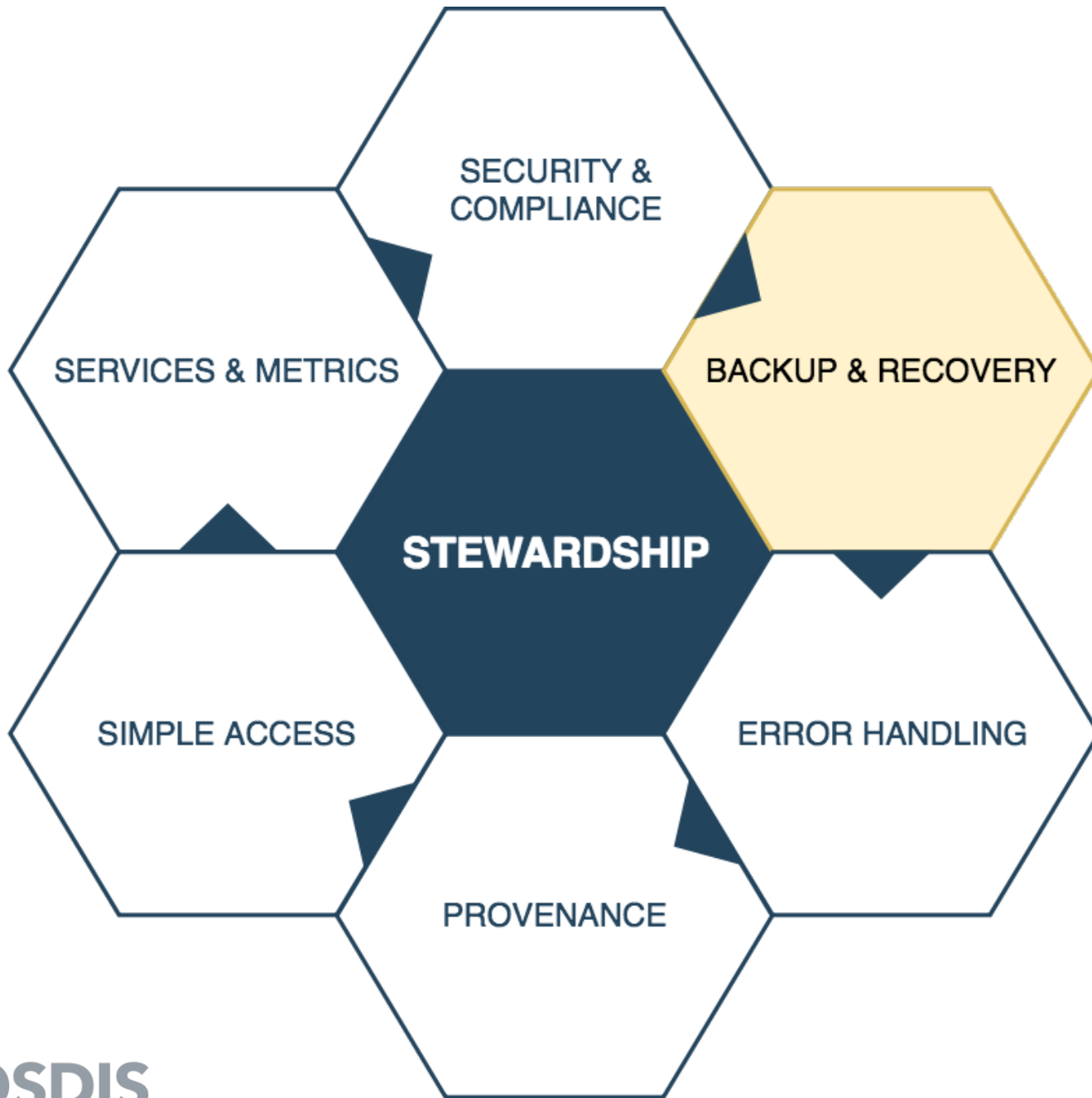


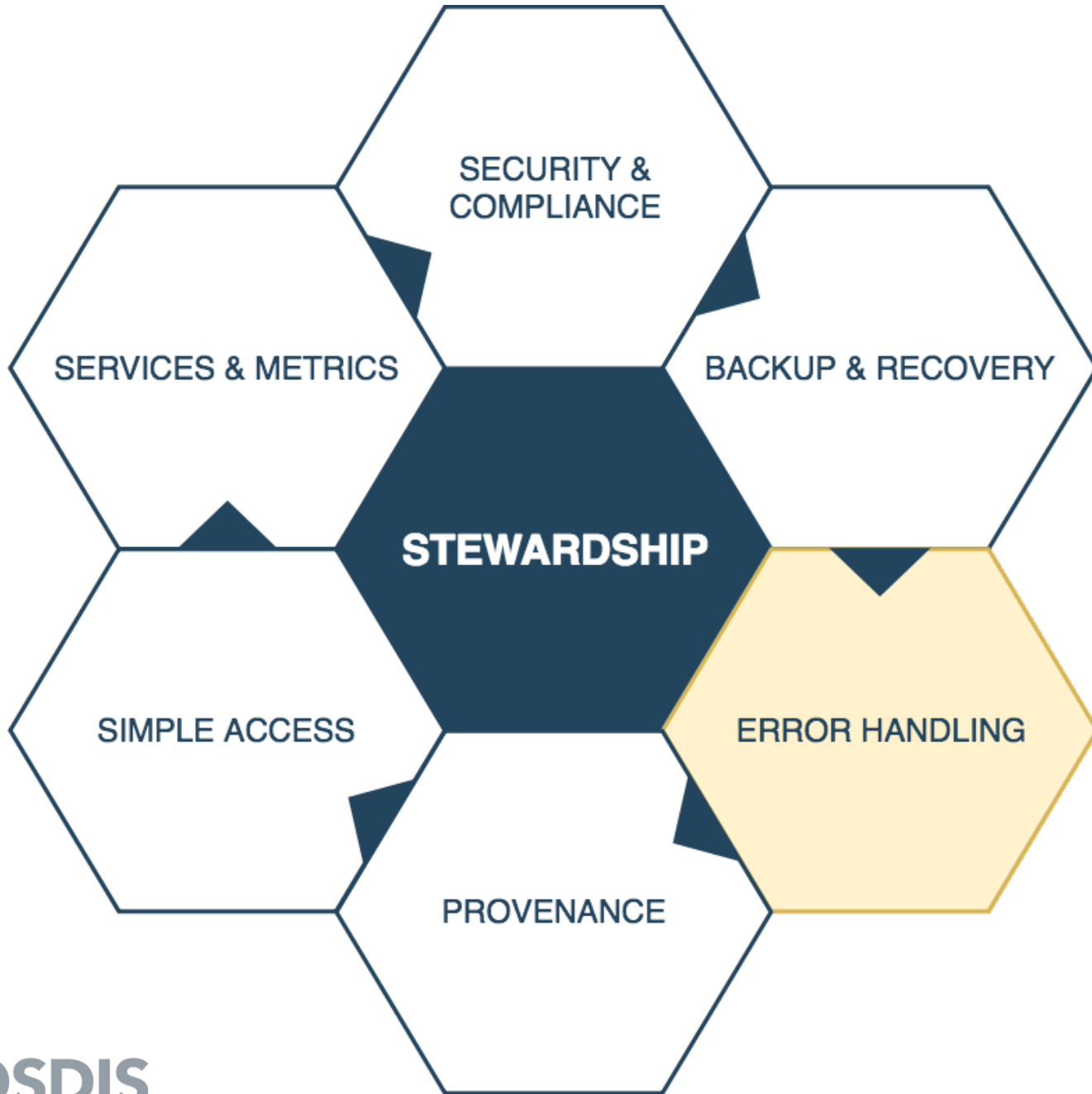




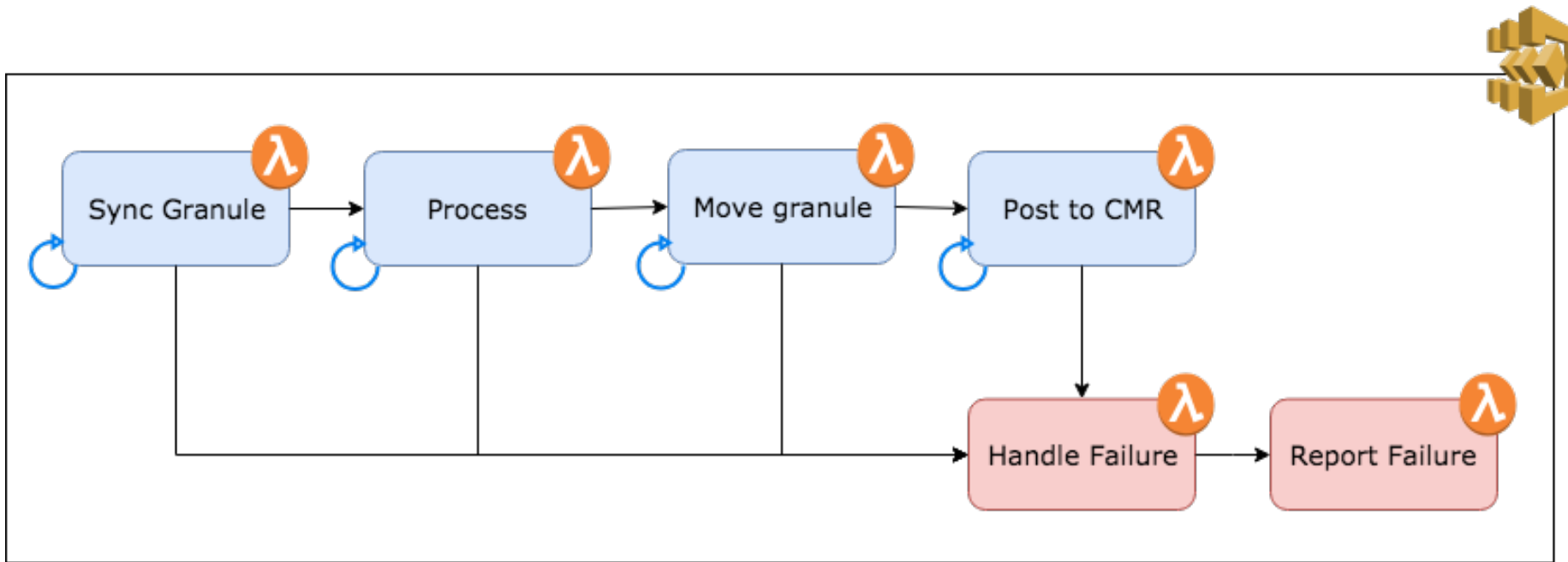
DAAC **NGAP** Account



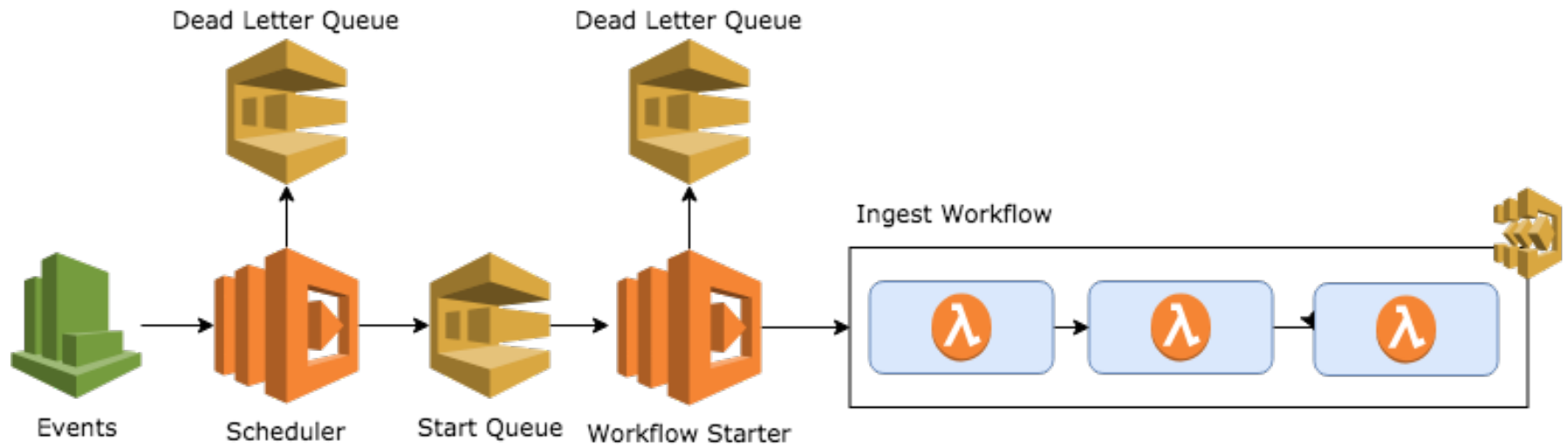




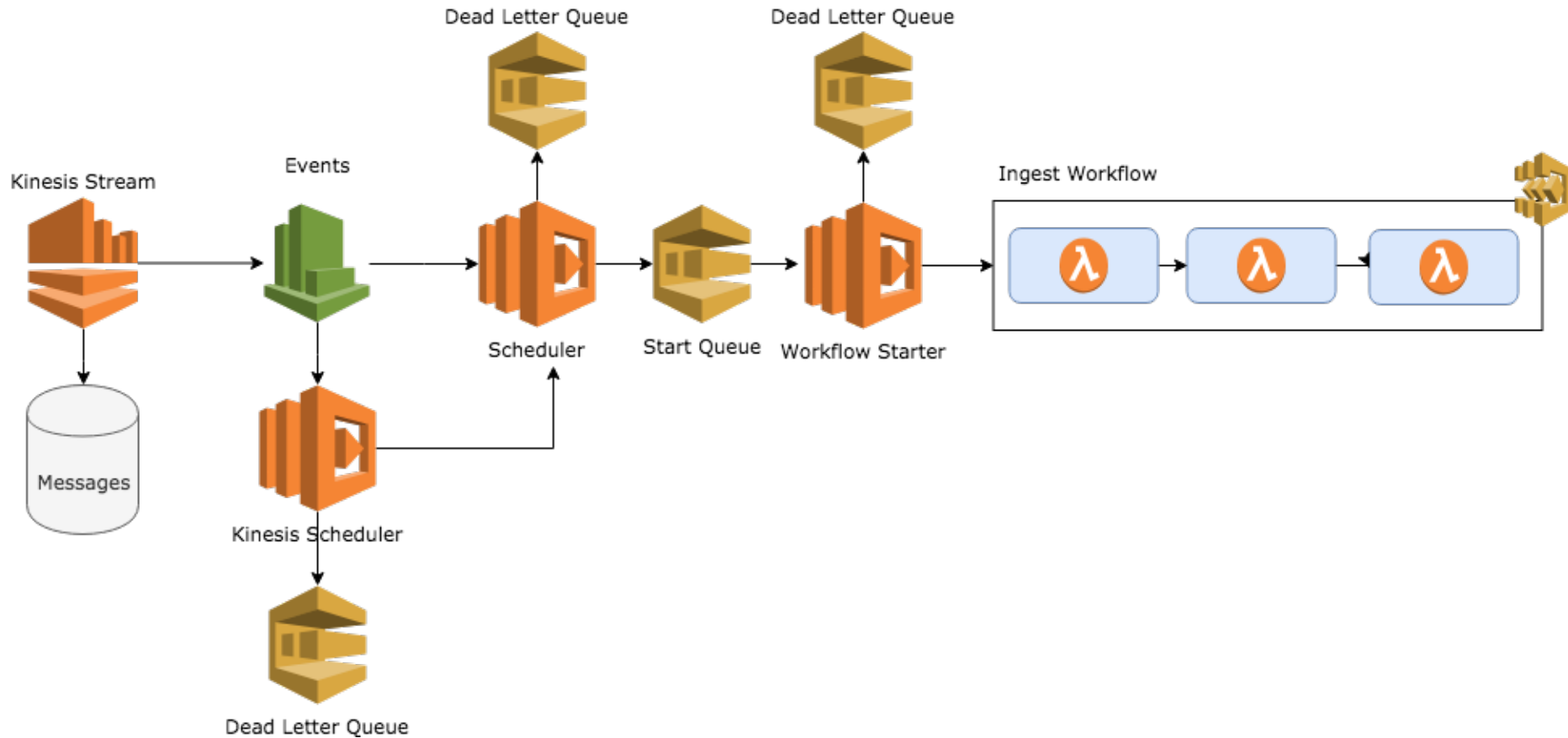
Dealing with Ingest Failures

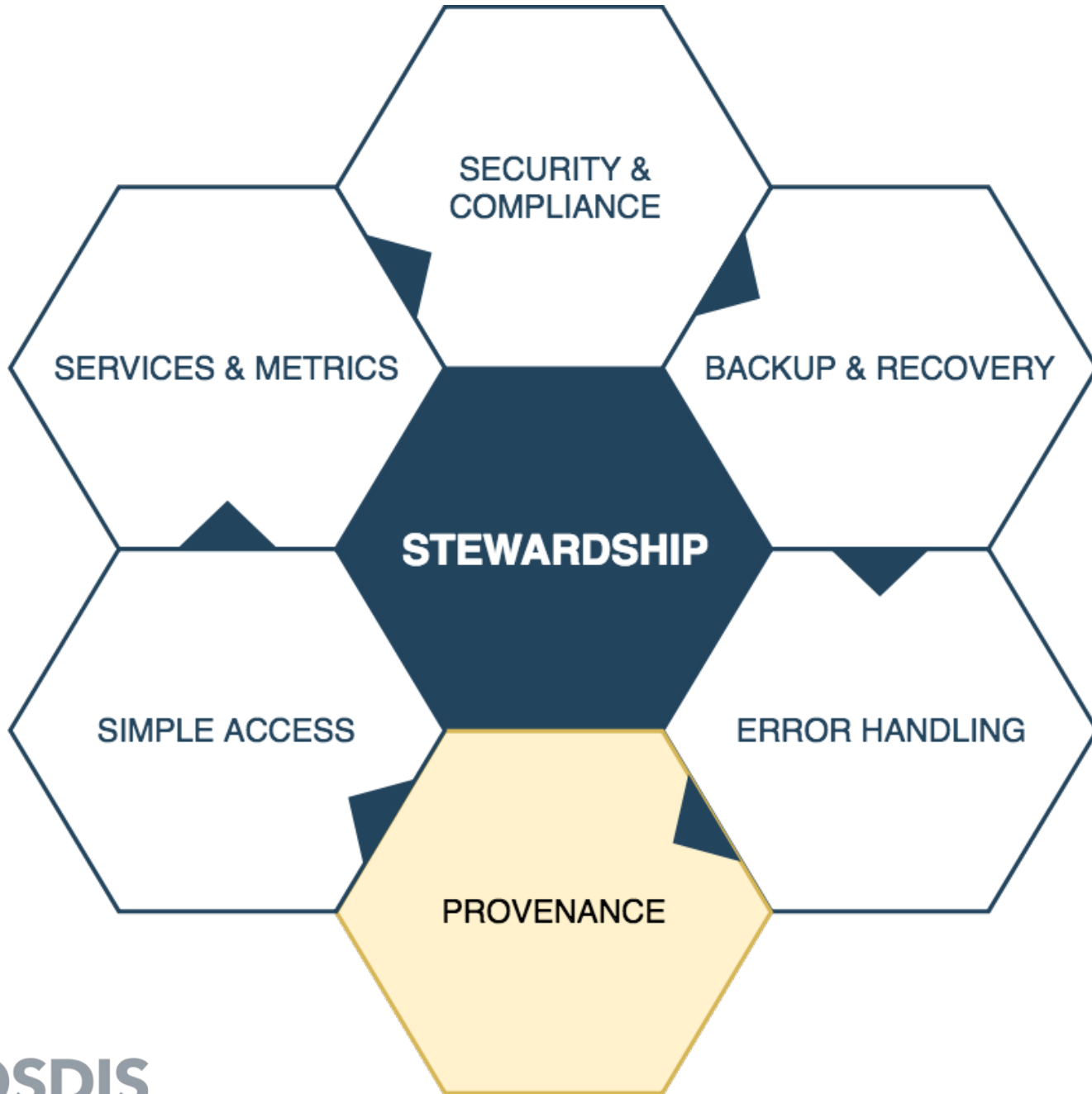


Failures to Trigger Ingest

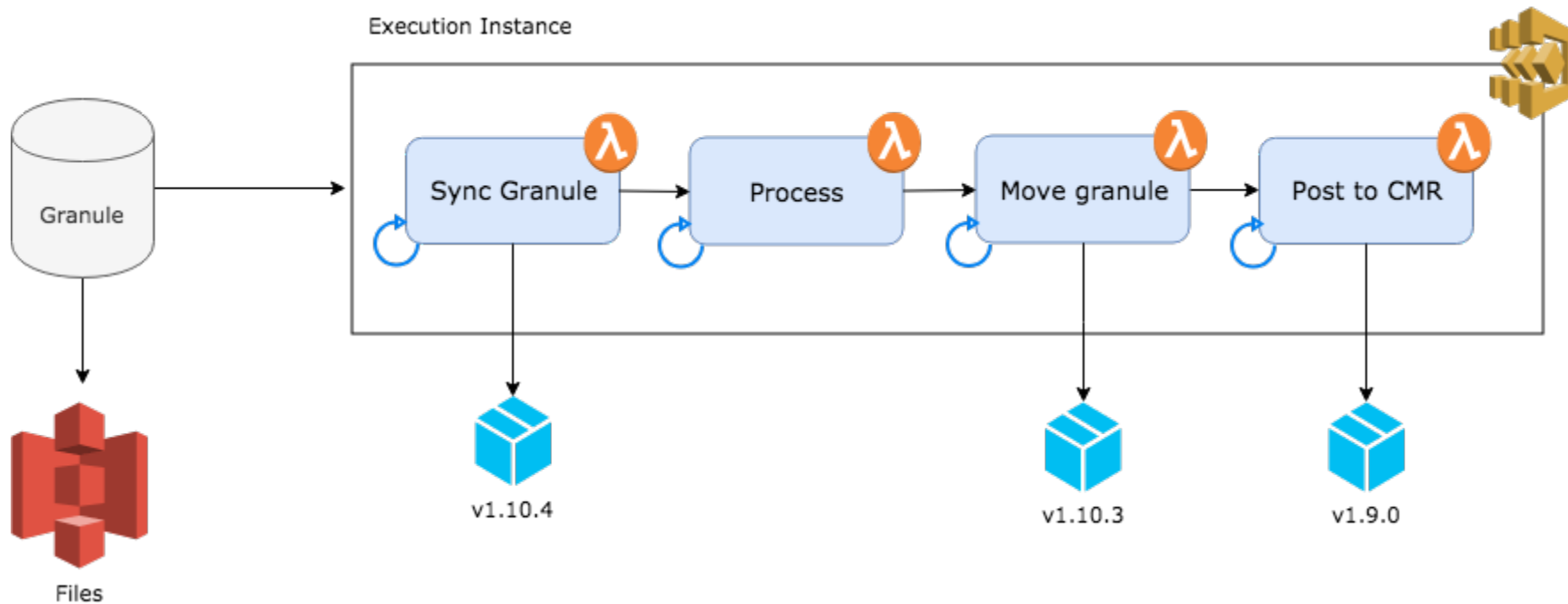


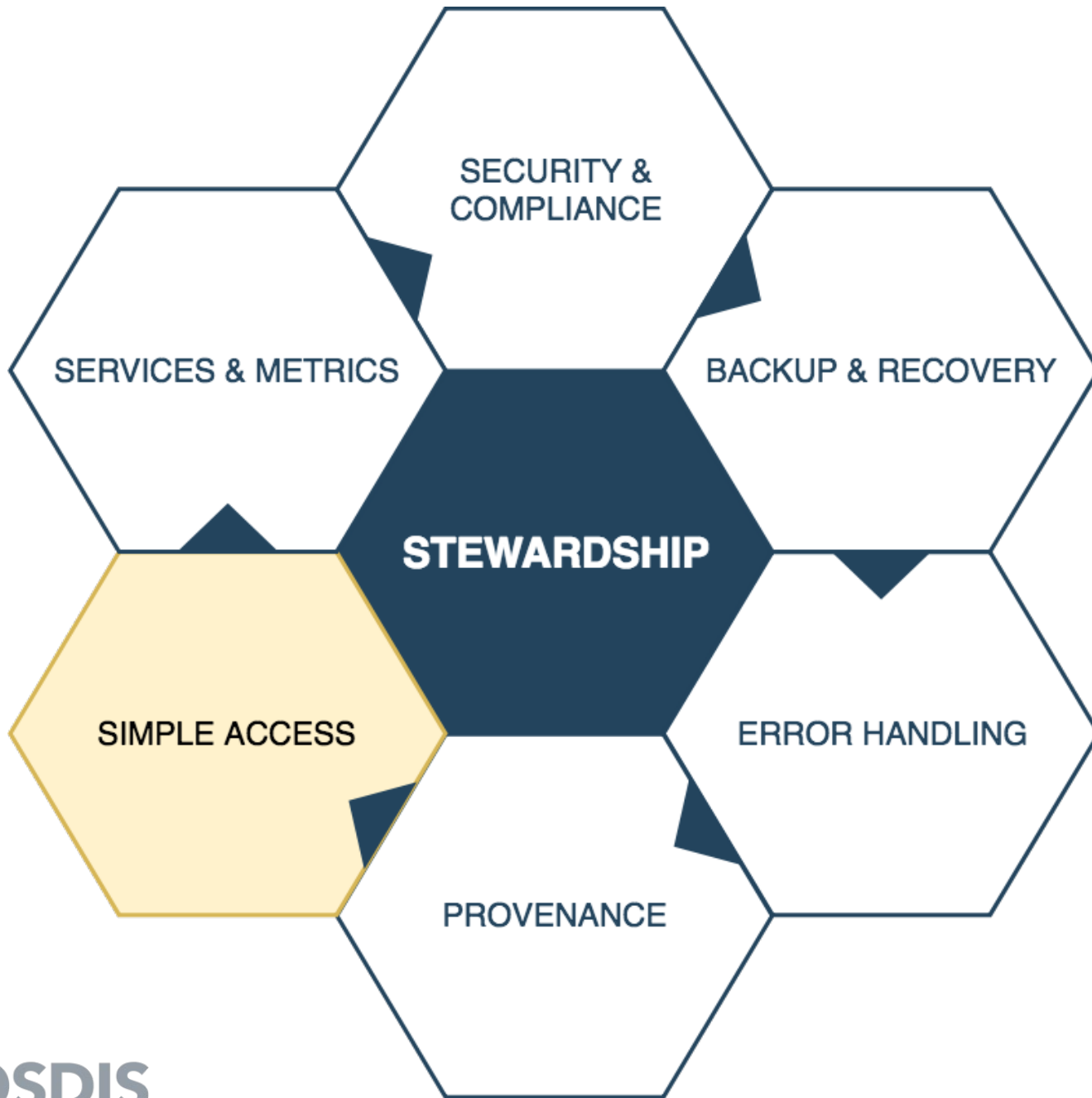
Kinesis Failures

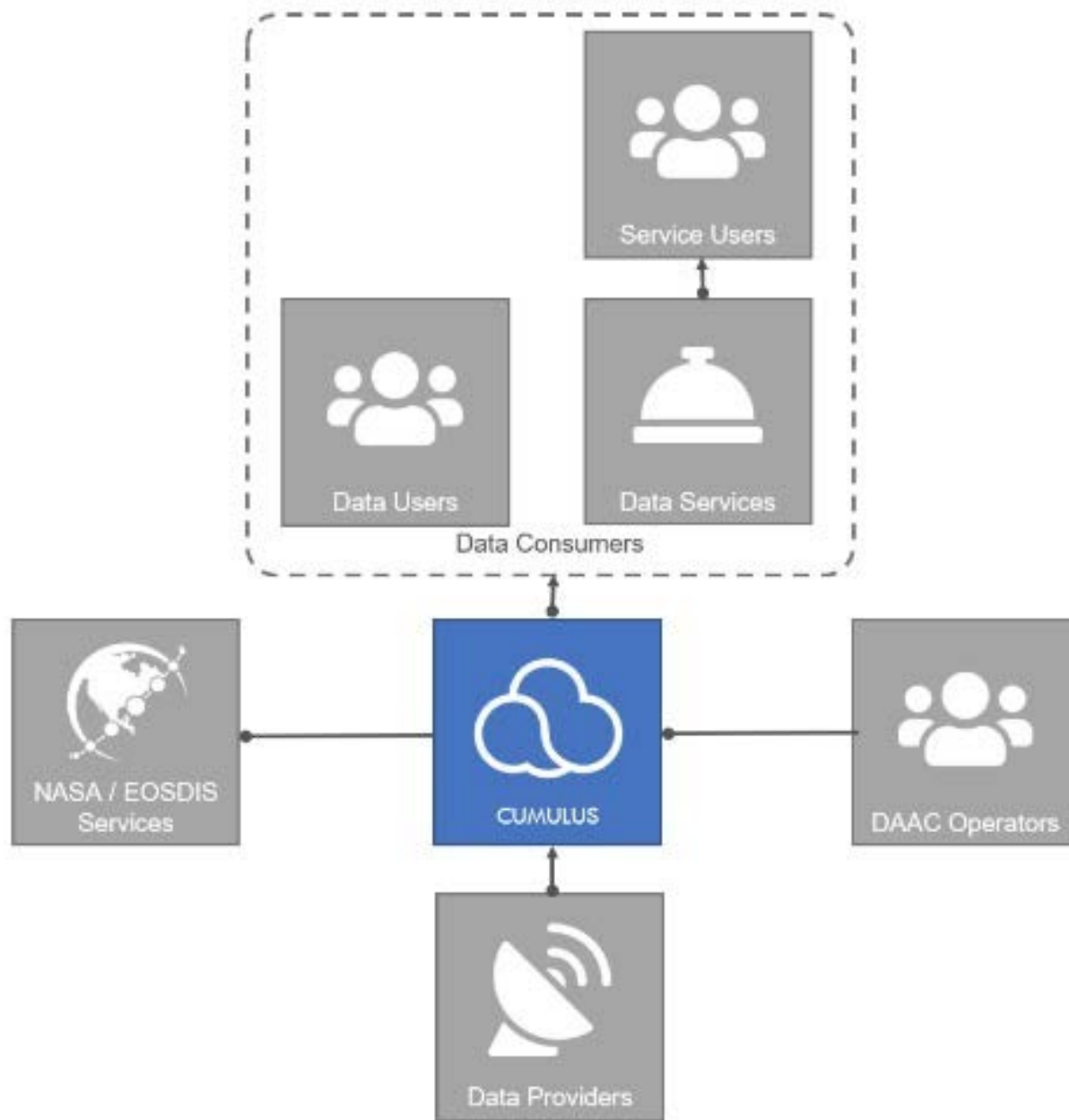




Data Provenance







Operator Dashboard

CUMULUS Dashboard

Updates

1

Errors

203

Collections

41

Granules

5,313

Executions

13

Ingest Rules



Discovery

<https://...>

Direct
Download

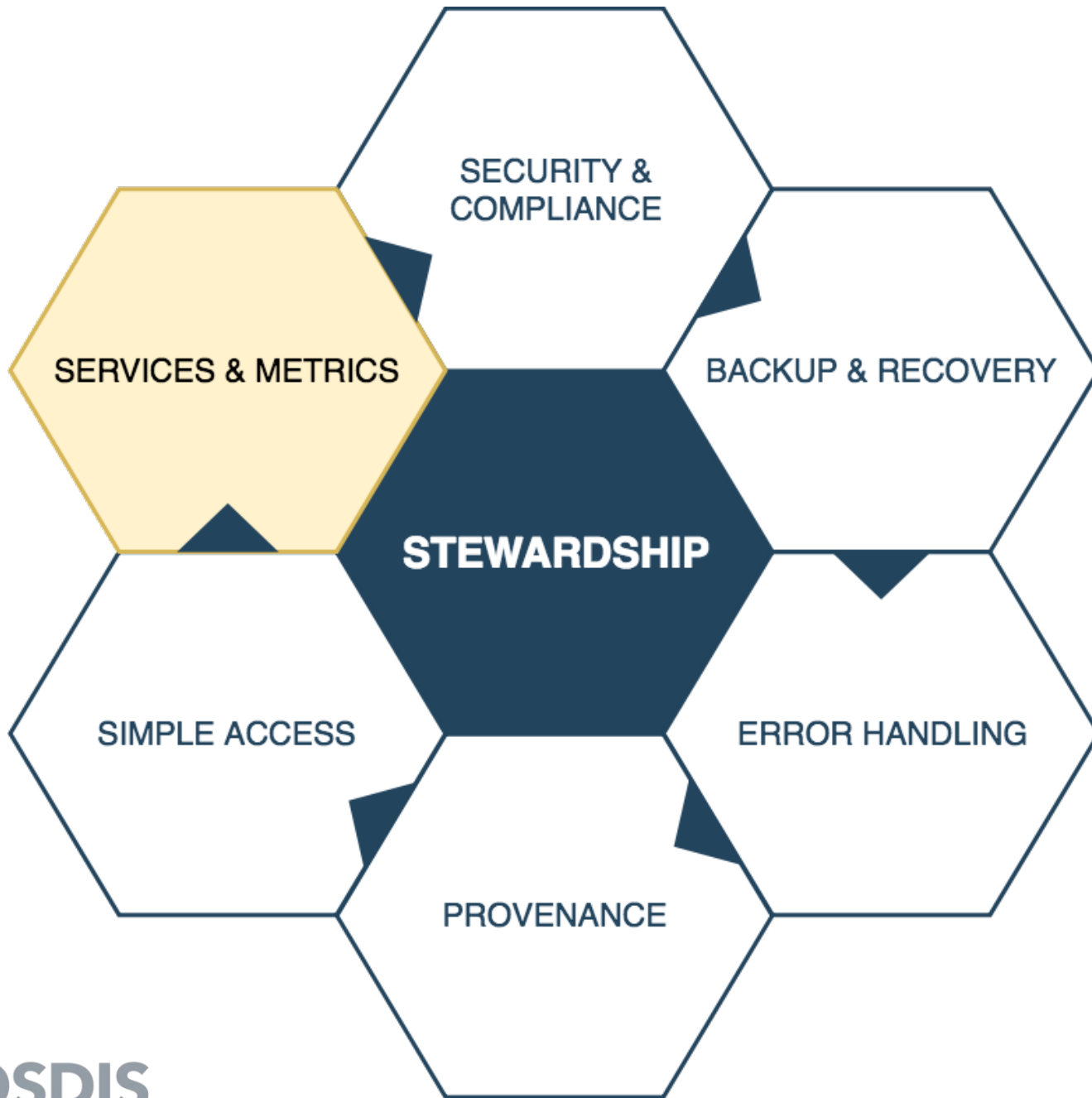
W*S GIBS

OPeNDAP

Services



Direct S3 Access



Granule Reconciliation

Reconciliation report

Created	2018-11-01T19:39:11.633Z	Status	SUCCESS
OK file count	172		

Files only in DynamoDB (579)









GranuleId ↕	Filename ↕	Bucket ↕	S3 Link ↕
MOD09GQ.A9917737.KFw8Br.006.5000644002066	MOD09GQ.A9917737.KFw8Br.006.5000644002066.hdf	lf-protected	Link
MOD09GQ.A0007560.zuzuRq.006.0290148655705	MOD09GQ.A0007560.zuzuRq.006.0290148655705.hdf.met	lf-private	Link

Files only in S3 (1231)



Filename ↕	Bucket ↕	S3 Link ↕
TMI_correction_rain.txt	cumulus-data-shared	Link
MOD09GQ.A0023605_gOahZ.006.8702444238062.hdf.met	lf-private	Link

Validation



✔ Unit test and stack deployment

✔ # 1872.2	  eslint
✔ # 1872.3	  Unit tests except API
✔ # 1872.4	  API unit tests
✔ # 1872.5	  Deploy Integration Test Stack

✔ Integration tests

✔ # 1872.6	  Run integration tests
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✔ Cleanup integration tests

✔ # 1872.7	  Cleanup integration tests
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Come Find Us



Check us out on github!

<https://github.com/nasa/cumulus>



Read up

<https://nasa.github.io/cumulus/>



Use our packages

<https://www.npmjs.com/org/cumulus>

Questions?

Thank You!

Lauren Frederick

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This work was supported by NASA/GSFC under Raytheon Co. contract number NNG15HZ39C.

Raytheon

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