



# EOSDIS

NASA'S EARTH OBSERVING SYSTEM  
DATA AND INFORMATION SYSTEM

# Cumulus: NASA Archives in the Cloud

## 2018 ESIP Summer Meeting

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

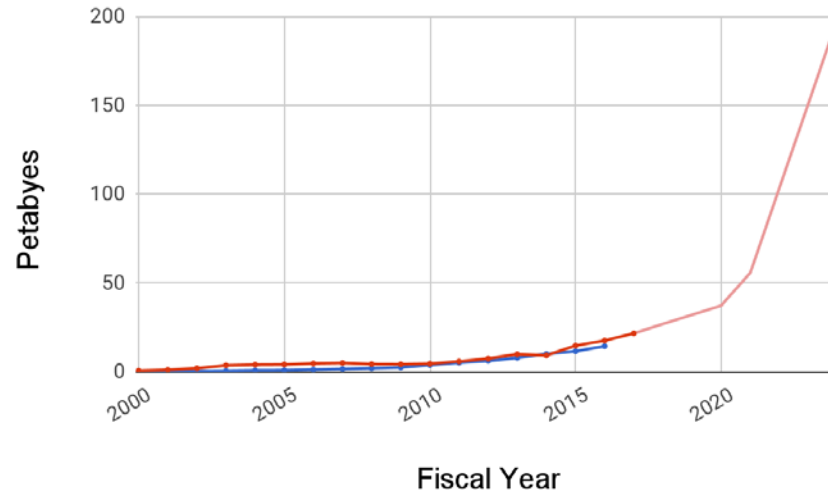
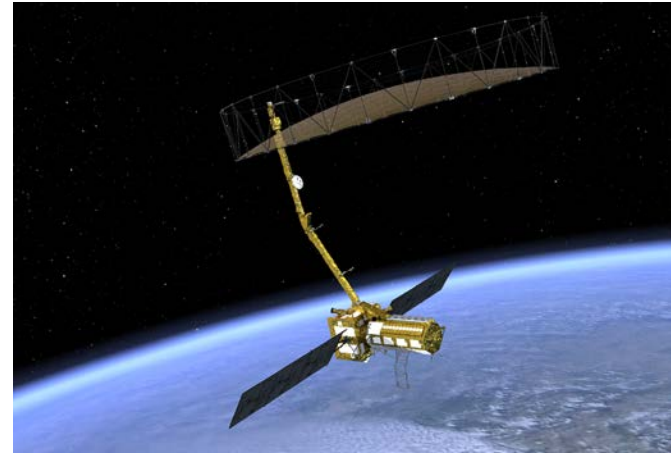
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Cumulus

# **BACKGROUND: DAACS IN THE CLOUD**

# Why DAACs in the Cloud?



# Science Archives in the Cloud



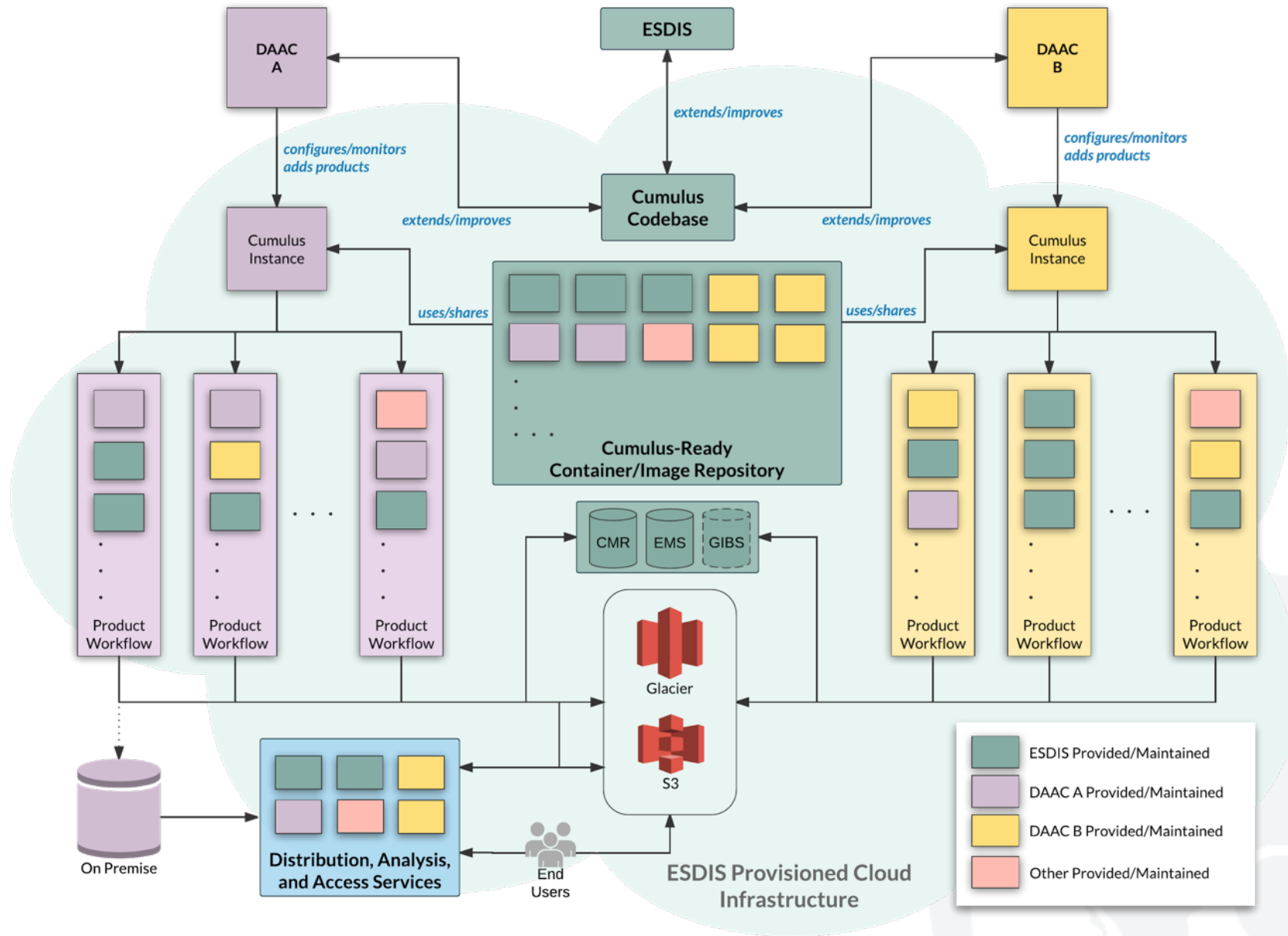
# CUMULUS: NASA ARCHIVES IN THE CLOUD

# What Is Cumulus?

Cumulus allows DAACs to ingest, archive, manage, and distribute data products, all within the cloud.

Cumulus is designed to be extensible and configurable, providing support for all DAACs while maximizing reuse and shareability.







Operator



Data Scientist

Ops Dashboard

Metrics Reports

OPeNDAP

AppEEARS

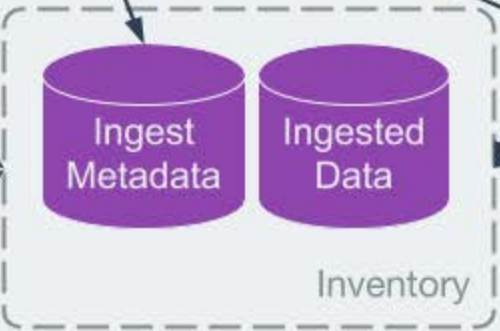
Direct Download

Ops API

Distribution API

Preservation

Archive Maintenance



Ingest Metadata

Ingested Data

Inventory



Workflow

Cumulus

DAAC-in-the-Cloud

Earthdata Login

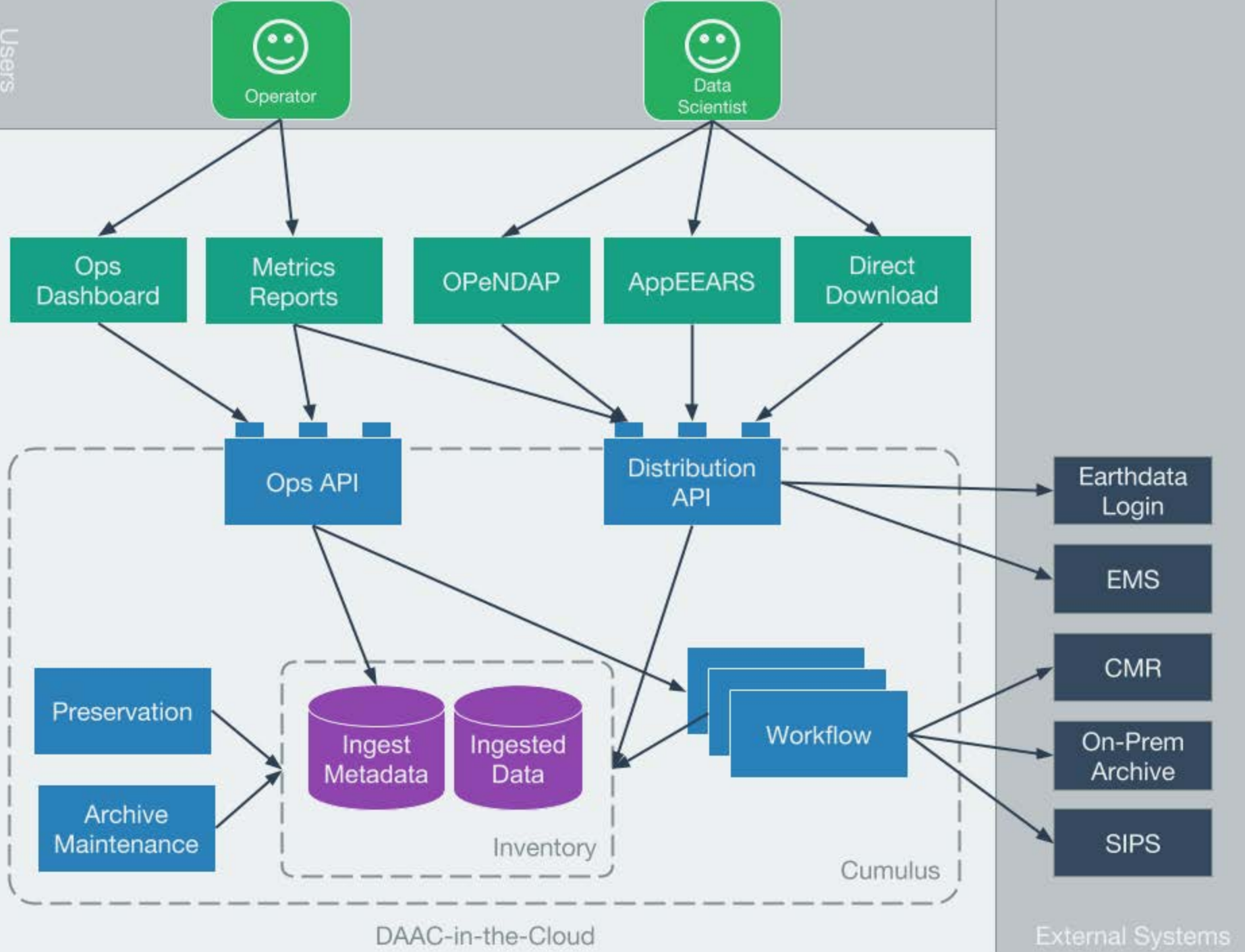
EMS

CMR

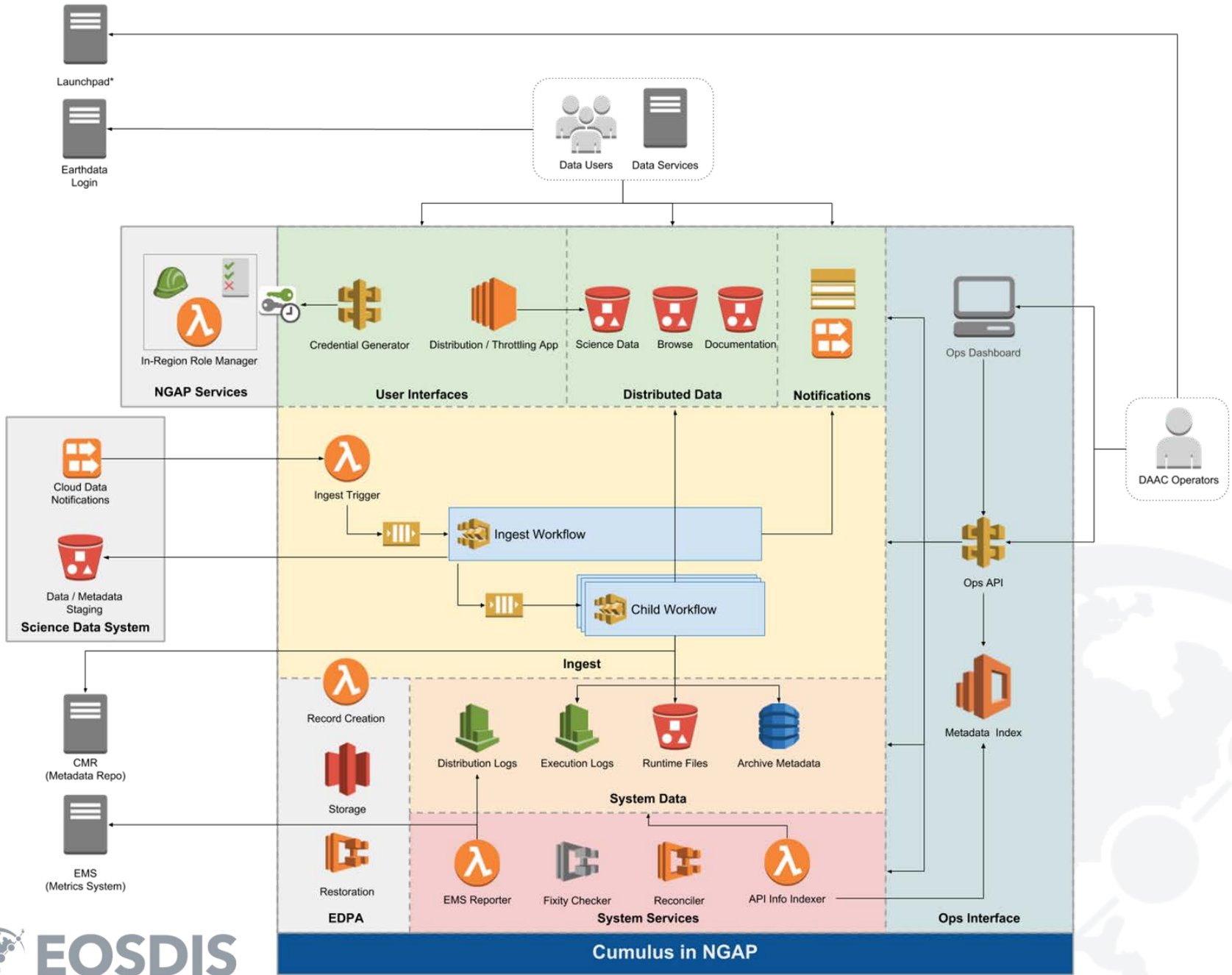
On-Prem Archive

SIPS

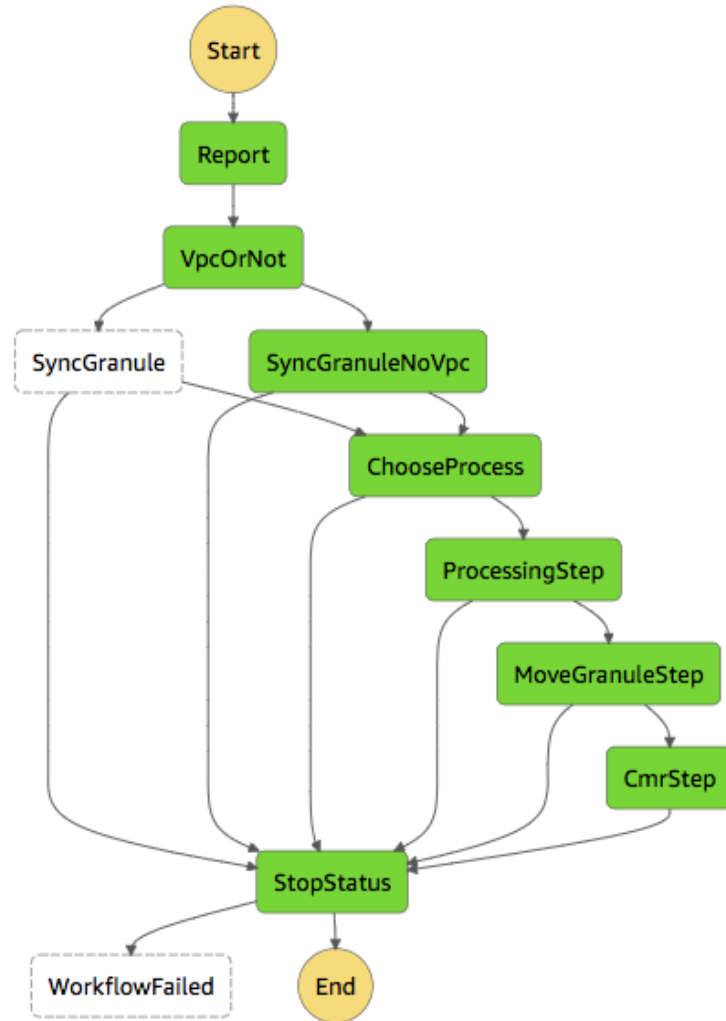
External Systems



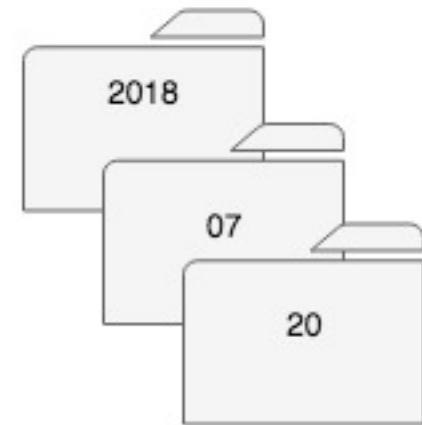
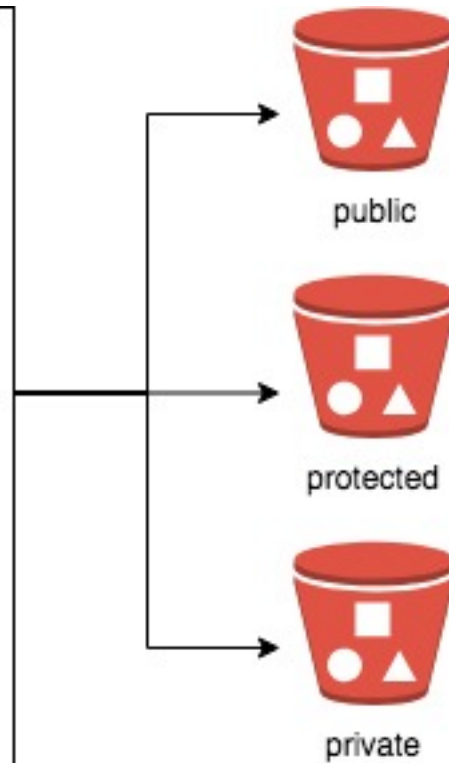
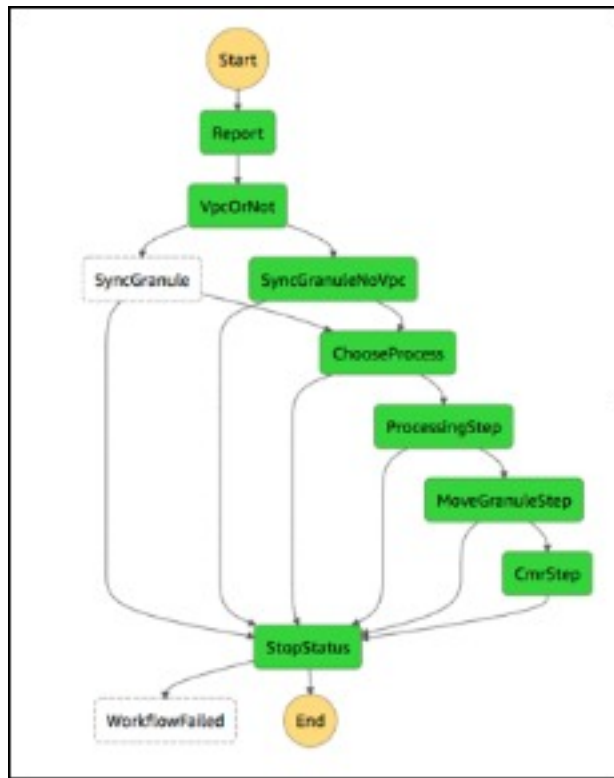




# Flexible, Configurable



# Flexible, Configurable



# Free and Open Access

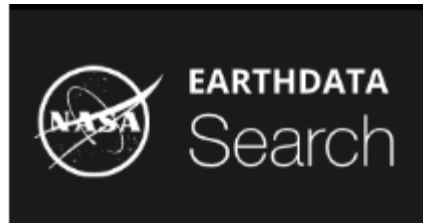
Check us out on github!

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



# WHAT IT MEANS FOR USERS

# The Same, Only Better



Discovery

**https://...**

Direct  
Download

**W\*S GIBS**  
**OPeNDAP**

Services



Direct S3 Access

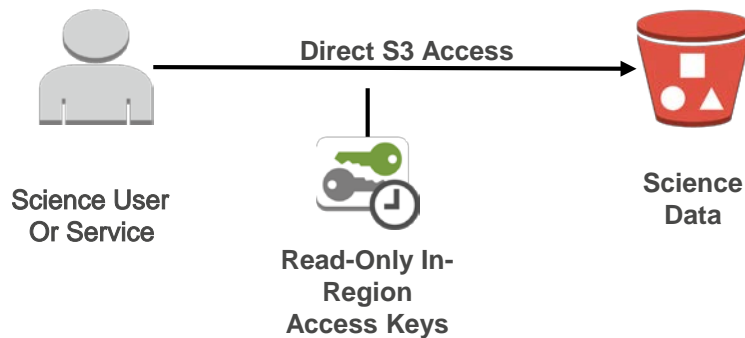
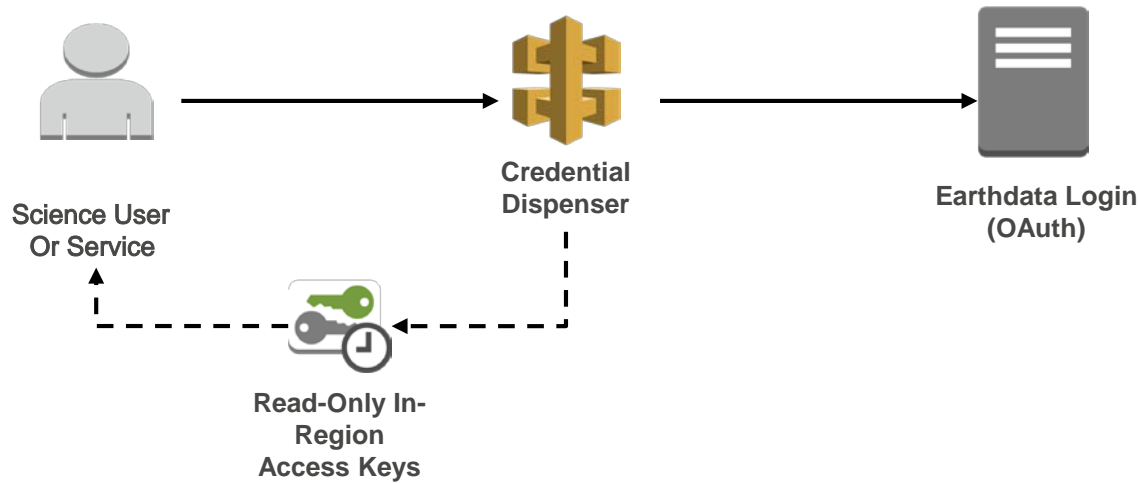
# Direct S3 Access?

But what about unbounded egress?

How does this tie back to Earthdata Login?



# Direct S3 Access!





Cumulus

**QUESTIONS?**

# Thank You!

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

# Raytheon

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