

Scenario - Nominal Science Data Production

Subsystems Involved: PLS, DPS, DSS, INS

Operations

Plan status and
Processing monitored
by Production Monitor
(see Planning scenarios)

ECS

Planning is notified of data availability

Planning submits data processing
request (DPR) if all input data is
available

Processing confirms to Planning that
the DPR is valid

Processing requests data staging of
the L0 data from Ingest

Processing notifies Planning of the
staging request



Scenario - Nominal Science Data Production (cont.)

Operations

Ingest and Science Data
Server faults handled by
Archive Manager

(see Data Archival/ Data
Distribution scenarios)

Processing monitored
by Production Monitor

(see Processing
scenarios)

ECS

L0 retrieved from and staged to a disk
accessible by the PGE that needs it

Request data staging of non L0 data

Processing notifies planning of the
staging request

Non-L0 data retrieved from Data
Server and staged to a disk accessible
by the PGE that needs it
PGE queued

Processing notifies planning of the
start of production

Scenario - Nominal Science Data Production (cont.)

Operations

Science Data Server
faults handled by Archive
Manager

(see Data Archival/ Data
Distribution scenarios)

ECS

PGE runs to completion

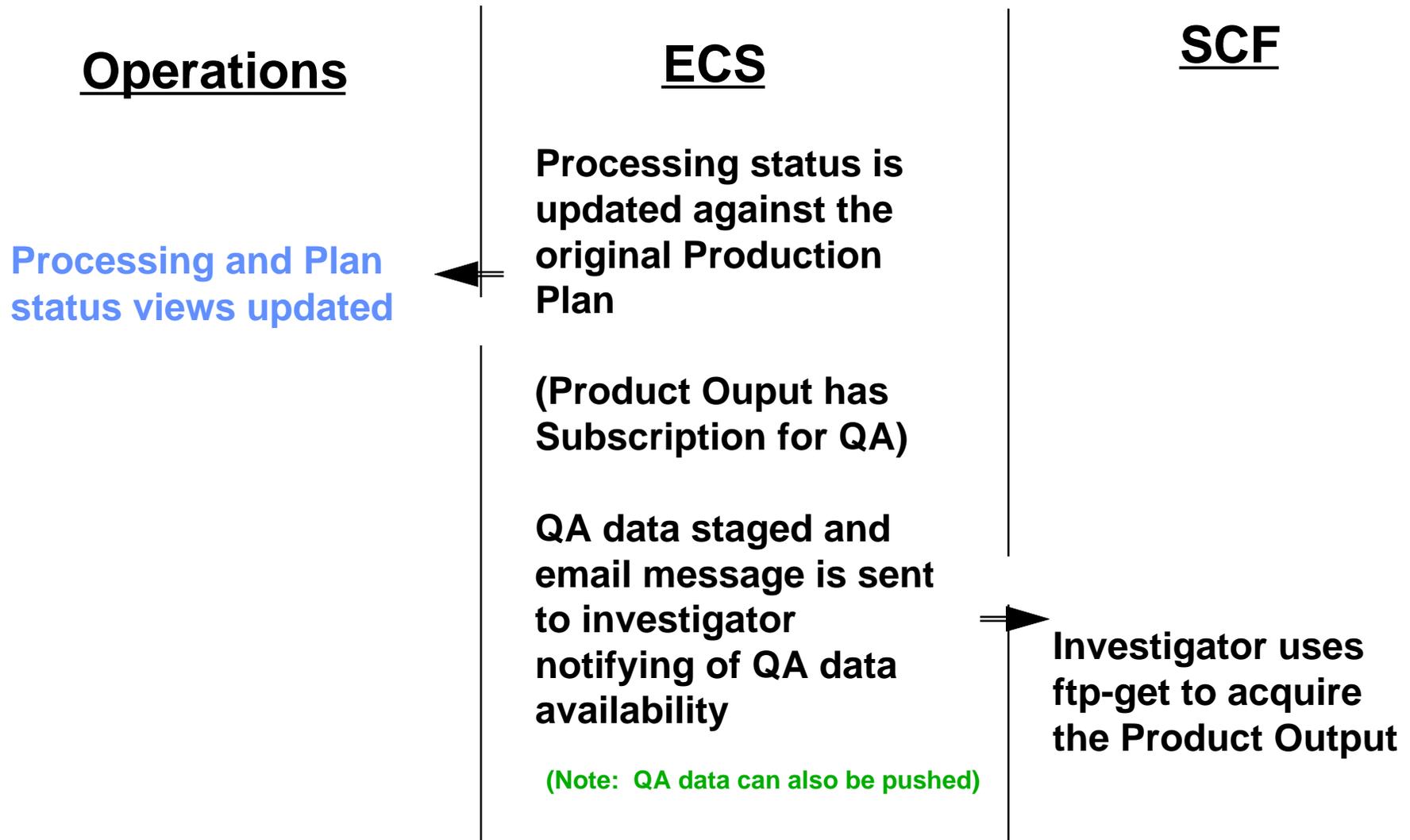
Processing requests de-staging of
product output, i.e., transfer to Data
Server

Processing notifies Planning of the
de-staging request

Data insertion request to data
storage

Data Server returns Archive
notification

Scenario - Nominal Science Data Production (cont.)



Scenario - Nominal Science Data Production (cont.)

Operations

ECS

SCF

Investigator performs QA

Investigator uses GUI to update metadata

Metadata updated



Scenario - Missing Ancillary Data

Operations

The CERES Production Monitor notes a deviation from the plan - a group of DPRs have not been processed when they were planned.

The CERES Production Monitor examines Data Availability status for DPRs, learns that these are several chains of DPRs awaiting a single ancillary data file of NMC data.

ECS

Displays Plan status

Displays Data Availability status of DPRs

plan status

Scenario - Missing Ancillary Data (cont.)

Operations

The CERES Production Monitor checks with GSFC and learns that the reformatting to HDF failed because the corresponding NMC file was empty. GSFC has no estimate on when this file will be available.

The CERES Production Monitor cancels the waiting DPRs and notes the reason. ▶ DPR status

ECS

Removes waiting DPRs, updates plan status.

(Note: DPRs could be left until whenever data finally arrives)

Scenario - Missing Ancillary Data (cont.)

Operations

Two days later, the Production Planner learns that the tardy ancillary data file is finally available. The Production Planner places Processing Requests (PR) for the highest level products in the canceled DPR chains

The Production Planner creates a plan for the next day's product generation.

ECS

PRs entered in Planning Data Base.

Planner creates candidate plans

Plan activated for following day

PR insertion

Planning

Scenario - “Reprocessing” Request

Operations

ECS

SCF

(Note: Reprocessing is accomplished through PR in Release A-- no automated data versioning or delete)

Investigator requests data be processed again using an alternate mode

The Production Planner places Processing Requests (PR) to use alternate PGE mode already entered in Planning Data Base.

PR insertion

Planning Data Base updated

email

Scenario - “Reprocessing” Request (cont.)

