

Release B CDR RID Report

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Document CDR

RID ID	CDR	70
Review	Release B CDR	
Originator Ref	0415-02	
Priority	2	

Section

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Figure Table

Category Name Ingest (INS) Design

Actionee ECS

Sub Category

Subject Throttling multi granule requests

Description of Problem or Suggestion:

While requests can be throttled, a request with many granules, especially of the same type, could spin off too many pthreads simultaneously, with possible problems in the following areas:

- 1) thrashing on the data provider's side
- 2) network saturation
- 3) simultaneous database updates (especially exceeding the number of users licensed)

Originator's Recommendation

Develop a granule-level throttling mechanism, which would queue granules over the limit and work them off. This should be configurable based on data type.

GSFC Response by:

GSFC Response Date

HAIS Response by: C. Gire

HAIS Schedule

HAIS R. E. C. Gire

HAIS Response Date 6/20/96

Only partially agree with the RID problem description since the Release B Ingest design already provides a granule level throttling capability. Agree to enhance the granule throttling capability to provide additional network utilization control.

Ingest provides throttling at two levels: request level and granule level. A system request maximum is checked. If exceeded, the request is rejected. If not exceeded the request is started.

The current Ingest subsystem design includes a granule count threshold and a granule volume threshold for each Granule Server. Granules exceeding total Granule Server granule count thresholds will be throttled by the Request Manager. Granules exceeding Granule Server volume thresholds will be throttled by the Granule Server.

An additional total volume threshold will be added to the Ingest design to provide more network utilization control (as requested by the RID). Granules exceeding the total volume threshold will be throttled (delayed) by the Request Manager process.

Status **Closed**

Date Closed **7/1/96**

Sponsor **Kobler**

***** Attachment if any *****