

# ETC Minutes - 3/30/2010

Tuesday, March 30, 2010

3:00 PM

## Attendees

- Matt Cechini (ECHO Ops)
- Art Cohen (ECS/ECHO)
- Cristina Bories (ECHO)
- Thom Raybold (ECHO Int Test)
- Linnette Quick (ECHO Ops)
- Frank Corprew (ECHO Ops)
- Cathy Fowler (NSIDC)
- Doug Fowler (NSIDC)
- Todd Edmands (NSIDC)
- Dawn Siemonsma (LPDAAC)
- Matt Martens (LPDAAC)
- Lisa Baatz (LPDAAC)
- Julie Luebke (LPDAAC)
- Ed Seiler (GSFCS4PA)
- Ben McMurry (ORNL)
- Chris Finch (PODAAC)
- Rosy Cordova (GCMD)
- Karen Sage (ASDC)
- Lindsay Parker (ASDC)
- Jon Pals (ECS)
- Tim Goff (ECS)
- Evelyn Nakamura (ECS)

## Agenda

1. ECHO Operations Status
2. Degraded Service Event (3/16/10)
3. Ingest File Error Handling Ops Concept
4. PUMP & ACL Reports
5. <Orderable> Metadata Element
6. Upcoming Events
  - 3/31/2010 – ECHO Preventative Maintenance (8:00am – 12:00pm)
7. Other Questions

## 1. ECHO Operational Status

The High Availability database hardware continues to perform as expected. Since its release, ECHO has seen its average query time consistently drop below 10 seconds, which has only occurred twice in the past year.

The DoS attack has abated for the time being. ECHO continues to implement a more robust network configuration in order to mitigate future attacks. Intermittent network connectivity outages should lessen due to the attacks lessening. Providers previously reporting orders being stuck in a submitting state should no longer see that issue as well.

An additional network issue was discovered, and is believed to have been a major contributor to the outages that ECHO has experienced. This is further explained in the Degraded Service Event document previously circulated.

## 2. Degraded Service Event (3/16/10)

### Executive Summary:

All instances of ECHO and WIST experienced an outage on the evening of Tuesday 3/16/10 starting at 4:45pm EST. Analysis has identified that a significant network event occurred which caused a loss of internal and external network connectivity. ECHO Operations was notified of the system issues by its automated monitoring tool and immediately contacted ECHO System Administrators. ECHO System Administrators were able to restore connectivity to all systems by 6:00pm EST. At that point, the Partner Test and Testbed systems were fully available. The Operational system remained unavailable due to an issue with connectivity between the Oracle RAC nodes. This problem was identified at 7:00pm EST and the ECHO System Administration and Database teams worked to identify the root cause of the problem. By 9:00pm EST the decision was made to restart each RAC node and restore them to proper working order. This took approximately 1 hour, completing at 10:00pm EST. Subsequent to this activity, the

Operational kernels were restarted, restoring ECHO and WIST search and order capabilities. Operational Ingest was restarted at 10:45pm EST. No data loss or corruption occurred as a result of this outage.

Additional details were included in the full document emailed to the echo-status-internal mailing list.

**Future Mitigation:**

The ECHO System Administration team is working closely with the GSFC network team to resolve the configuration issues discovered between network components. Configuration changes were made to the ECHO network uplink during the 3/24/10 preventative maintenance. These changes did not resolve the issue, but improved the stability of network components to reduce the likelihood of a repeat of the issues seen on 3/16/10. To mitigate the issues seen on 3/16/10 entirely, discussions have been held with the GSFC network team and the corrective configuration changes are scheduled to be made during the 3/31/10 preventative maintenance.

Additional monitoring of the new Operational RAC nodes has been added to ECHO's system monitoring tool. This monitoring will help identify issues with RAC services in a more timely fashion.

### 3. Ingest File Error Handling - Ops Concept

The "Ingest File Error Handling" (ECHO\_OpsCon\_015) document was reviewed. Details can be found in the document which was attached to the ETC agenda.

- Will a job level error would be included in the Ingest Summary Reports?
  - According to existing Ingest functionality, if Ingest is configured to fail a job due to file errors, a job level error will be included when file errors occur. This OpsCon will utilize that nominal functionality and **will** include a job error in the event that the job is not fully processed.

There were no concerns regarding the proposed implementation. NSIDC, GSFC, LPDAAC, and LARC all gave approval. There were no dissenting votes.

BMGT would potentially require a database push to handle the new error code. ECS development will be consulted regarding these changes.

NSIDC ok with it.

BMGT ok with it. Would need to push an update to BMGT to handle to new error code.

Will this include a job level error?

GSFC ok with it.

LPDAAC ok with it.

LARC ok with it.

### 4. PUMP & ACL Reports

In the current ACL implementation, a data provider can generate an ACL report containing all ACLs that apply to one of the following constraints:

- All Rules
- All collections
- Specific collections
- All granules
- Specific granules

The new (10.22+) implementation does not have this functionality yet. We would like to discuss if you have any interest in this functionality. If so, then we would like to discuss what type of information you would like displayed. From that we would generate screen shots and ultimately implement a final solution.

- LPDAAC - Dan Traut is not present, but he would likely want this functionality.
- NSIDC - Amanda will send her response separately.
- ASDC - Lindsay will discuss this with others internally.

This issue will be revisited in a future ETC.

## 5. <Orderable> Metadata Element

Starting with ECHO 10.22/23, the <visible> and <orderable> metadata elements will no longer affect end users' ability to view or order data, per changes made in the new ACL and Group Management functionality. Although the metadata is not being used, the <orderable> element will still be returned as a part of the collection and granule query results. Removing this from the query results DTDs would be a change the ECHO API which we do not want to make at this time. We are proposing that this element be left in the results DTD until such time as we are willing to change the ECHO API. There is a separate NCR (11004928) related to how the <orderable> AQL condition is used during searching. We would potentially look to resolve both of these issues at the same time.

In ECHO 10.22/23, ECHO will no longer utilize the <orderable> metadata element for controlling whether a granule or collection is orderable. However, it appears that WIST will still use the value of this element. It has been determined that the level of effort to change WIST is sufficiently larger than we are comfortable with at this time. In discussions with you, we have not heard that there are any planned changes in how the <orderable> flag will be exported incident to the changes in ECHO 10.22/23. It is our recommendation that Data Providers continue to export the <orderable> flag value as they have done in the past. WIST will continue to use this value to determine whether a granule can be added to the user's shopping cart. When setting order options in WIST, ECHO will utilize the new ACLs to determine whether the granule is indeed orderable by the user. This is how the functionality works currently in ECHO and WIST.

There were no concerns regarding these items.

## 6. Upcoming Events

- 3/31/2010 – ECHO Preventative Maintenance (8:00am – 12:00pm)
  - Ingest & FTP will be unavailable during this time.

## 7. Questions/Comments

- None