Degraded Service Event

Date: August 26th 2009
Time: 2:00pm (EST) – 5:00 (EST)

Description:

During this event, ECHO experienced a slowness in response while submitting orders to the LPDAAC order fulfillment service. After the configured internal timeout, ECHO was correctly moving orders to the retry queue and processing subsequent orders. Due to the large number of orders which were being serviced for LPDAAC, ECHO was in a state where non-LPDAAC orders were not being serviced in a timely manner. A similar situation occurred around June 21st – 24th with LPDAAC order fulfillment connectivity. An NCR was written at that time, procedures put in place to detect the situation, and NCR 11004606 was written to track an ECHO enhancement to increase order dispatching fault tolerance.

Incident to the recent event, the ECHO managed mailing lists were non-functional due to an unrelated issue. This outage did not have an impact on the detection of the outage, but had the potential to have delayed discovery without LPDAAC’s intervention. The ECHO monitoring tool would have notified ECHO operations regarding the stuck orders after being stuck for more than 6 hours. This notification would have been sent an ECHO mailing list, and hence could have been affected by the outage.

After being notified of the issue, ECHO Operations investigated the issue and was able to identify that there was an issue communicating with the LPDAAC order fulfillment service. A configuration workaround was implemented in order to address the issue and release the backlog of orders. At that point, all non-LPDAAC orders were successfully serviced. All LPDAAC orders were put into a retry state. After LPDAAC resolved their internal system issues, the temporary workaround was removed and LPDAAC orders began to be serviced according to the normal retry process.

Timeline:

- 3:30pm (EST) – LPDAAC reported via email that they were no longer receiving orders from ECHO.
- 4:30pm (EST) – ECHO emailed the ECS data providers regarding the degraded service.
- 5:00pm (EST) – ECHO implemented a work around to address LPDAAC order fulfillment issues and notified ECS data providers. (All non-LPDAAC orders were successfully dispatched).
- 5:37pm (EST) – LPDAAC reported that they had resolved an internal issue with EWOC and were successfully receiving orders from ECHO.

Associated Tickets/NCRs:

- ECHO_SA_TTs – 14000265 – This ticket was logged on the morning of the 26th to track the issues with the ECHO mailing lists.
- ECHO_TTs – None – A ticket was not written by LPDAAC or ECHO at the time of this event due to an existing NCR
- ECHO_NCRs – 11004606 – This NCR was written when the first order dispatching event occurred and is currently being worked for inclusion in 10.17.
Future Mitigation:

ECHO has a proposed solution to NCR 11004606 which will be reviewed during the 9/1 ETC meeting and is considered for inclusion in Sprint 10.17 pending Data Provider review and priorities. Configuration changes and additional monitoring have been added to mitigate issues with the ECHO managed mailing lists.