

ICS Outage Report – 16 December 2009

Wednesday 16 December 2009

During the standard outage window a change was made to the ICS database to extend available space to the system. This was required to be backed out due to an inability to complete the work to the ICS database successfully. Once this was identified work commenced immediately to revert to the original state. At this point in time the estimate to return to normal processing was 10am.

Technical Details

In order to revert to the original system state ICS data was required to be reloaded and database indexes, which are used to improve the speed of data retrieval, needed to be rebuilt. Due to the amount of data held within the ICS and the time required to complete remediation activities only 2009 data was loaded to facilitate a return to normal service for the majority of ICS users as quickly as possible.

The ICS Interactive was available to users from around 9:30am to view 2009 data, and enter new transactions, however there was no EDI processing of messages at this time.

From this point, the system was closely monitored with a focus to replay EDI messages that were queued to bring all data up to the current point in time and return processing of messages to business as usual. While this activity was occurring, monitoring of performance was done in parallel to ensure no adverse impacts to the system.

Industry was notified of the incident through the Cargo Support website (ICS Updates) and the Customs Interactive Announcements Page.

These occurred as follows:

ICS Updates

- The first message was posted at 03:57 and advised users that there were problems with the ICS and that it was anticipated these would be resolved by 9am.
- An update was posted at 07:29 and advised that some functionality would be available by 9am.
- At 09:44 the message was updated to advise some functionality would be available by 10am.
- An update posted at 11:34 advised that the ICS was about to commence processing the backlog of messages however response times would be very slow for the rest of the day and that BCP was formally invoked.
- A final update was posted at 18:57 and advised that ICS was expected to finish processing the backlog and return to normal processing later that evening.

ICS Announcements Page

Users were able to log in to the ICS from around 09:30. Messages were placed on the home page as follows:

- 09:35 - Announcement placed advising ICS not processing and limited processing may occur from 10am.
- 12:15 - Announcement placed that processing still slow and should be caught up around 6pm.
- 18:58 - Announcement placed that processing was slow and should be caught up later in evening.

Impact

At 3.00pm approximately 45,000 messages were released from the gateway to ICS to commence processing. Processing of this load was monitored and at 5.00pm there was an approximate delay of 2.5 hours for processing of messages. A further 20,000 messages were queued at the gateway and released throughout the evening to be processed by ICS. The ICS queues were managed manually at this time to improve processing speeds on priority traffic. By 7.30pm delays in the processing of air cargo messages was down to 1 hour. At 8.30pm it was confirmed that almost all business critical queues were operating in real time and by 9.30pm all ICS processing was occurring in real time.

During the incident CI&SC received around 750 extra cargo incoming calls. At 9am a message was activated at the start of the IVR, prior to the Welcome message. This advised clients that Customs and Border Protection were experiencing issues and directed them to the website rather than holding on to speak to an officer. The IVR call statistics show that this message was successful in reducing the inbound calls through to an officer and therefore decreasing wait times. The message was removed at 8pm.

All available CI&SC staff were brought in earlier than their rostered shift start and the operating hours of the CI&SC were extended to 11pm as opposed to the normal 9pm finishing time. Additional staff were also rostered on the following day.

During the outage, BCP was invoked for Export & Imports. CI&SC received 277 requests to process contingency requests.

A number of urgent clearances were manually provided for section 70 clearances.

Full Resolution

From Thursday 17th December, investigation into remediation plans commenced to have 2008 and previous year's data loaded into the ICS to return 100% of services. A number of options to restore all data were considered. To minimise impact on users it was decided to rebuild another copy of the ICS database table. This was completed successfully on Sunday 19 December restoring all historical data to the ICS.