

ICS Outage Report – 27/28 June 2010

Sunday 27 – Monday 28 June 2010

On 27 June 2010, a key part of the Customs and Border Protection's Integrated Cargo System (ICS), the Customs Connect Facility (CCF), was undergoing a scheduled outage. Due to the technical complexity of this change it was decided that an extraordinary outage would be needed on the Sunday morning rather than use the routine scheduled outage window that occurs each Wednesday morning.

Complications arose during the change, causing delays in sending and receiving messages with industry.

On both 27 and 28 June 2010, the system fluctuated between operating normally, running slowly and not operating at all. This resulted in users of the ICS experiencing problems with the system.

During this period, Customs and Border Protection provided support to industry through agreed business continuity arrangements and assisted industry to clear urgent cargo.

All major problems with the system were resolved on Monday 28 June 2010 and the ICS is now operating in line with expectations.

A problem with printing from the ICS was also identified and caused significant inconvenience to Customs Brokers. This problem was resolved at 1300 on Wednesday 30 June.

Technical Details

The deployment was a complex change to the CCF in support of the new aviation security measures (PNR messaging). This release required changes to the infrastructure that processes Customs Cargo messages while also enabling the new PNR messages to flow through to related Passenger systems.

While the scheduled release encountered issues primarily related to the time taken to re-load databases, the change did conclude, albeit later than expected and was signed off in the afternoon of the 27 June in what appeared full health.

One of the two Transform nodes failed at approximately 09:00, 27 June. The file system on the node was checked and it was found that the queue limit was only 200,000 messages, insufficient for normal processing, and this was increased to 2 million messages at approximately 17:00, 27 June.

This Transform node was disabled after it again failed on Sunday evening with problems with MQ processing of messages into the Message Tracking Logger database (MTL).

The remaining Transform node failed at 23:56, 27 June due to MQ issues resulting in a automatic controlled shutdown of MQ, resulting in processing of messages (both Cargo and Passengers) stopping.

Through 28 June, the business operated in contingency mode while the CCF issues were being investigated by an around the clock joint technical team with key discussion support via on call Customs Executive staff.

CCF has been operating within normal parameters since 22:30 28 June when BCP halted and normal operations resumed.

Sequence of Events

Sunday 27 June 2010

00:00 - Planned ICS outage, problems experienced and CCF was unable to process EDI messages from its planned return at 0400. Customs Interactive was not affected. Investigation identified a number of issues within the CCF and work was undertaken to resolve these.

08:35 - BCP Phase 1 was formally invoked for the processing of Air Cargo Underbonds & Export Declarations and Sub Manifests due to be exported in the next 24 hours.

11:00 - Changes were deployed and testing was undertaken. At 1130 processing of stored messages commenced and the system was available however there was a large backlog of messages.

15:30 - Backlog of messages had completed and ICS was processing as normal. BCP was discontinued.

21:30 - Due to failures with the CCF EDI messaging slowed.

23:30 – EDI messaging stopped.

Monday 28 June 2010

06:15 - BCP Phase 1 was formally invoked for the processing of Air Cargo Underbonds & Export Declarations and Sub Manifests due to be exported in the next 24 hours.

07:10 - CCF issue was resolved and EDI messaging resumed as normal. BCP discontinued.

12:10 - EDI messaging slowed again.

12:30 - BCP Phase 1 was formally invoked for the processing of Air Cargo Underbonds & Export Declarations and Sub Manifests due to be exported in the next 24 hours.

13:50 - Phase 2 of BCP was invoked. This included Sea Cargo Reports.

14:30 - Phase 3 of BCP was invoked.

17:50 - EDI messages started processing however large delays were to be expected and BCP would remain in place. CI&SC would remain open all night to process any urgent clearances.

21:45 - A fix was deployed to resolve the issues.

22:30 - All EDI messaging issues were resolved and backlogs were cleared. ICS operating normally however CI&SC would remain open all night to process any urgent clearances.

Impact

During the incident CI&SC received around 550 extra cargo incoming calls and made an additional 170 outbound calls. Additional CI&SC staff were brought in and the operating hours of the CI&SC were extended.

During the outage, BCP was invoked for Export & Imports. CI&SC received 388 requests to process contingency requests. 190 requests were successfully processed, 135 were received with errors or incomplete and the remaining 63 requests were for cargo that had already been processed by the ICS.

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

Communication

Industry was continually notified of the incident through:

- the Cargo Support website (ICS Updates),
- emails through the Cargo Support mailing list,
- emails to specific industry associations, and
- announcements on the Customs Interactive Home Page.