



30 November 2004

## **An Assessment of the Iraqi Customs Levy System (ICLS)**

### **Executive Summary**

Part of the implementation of the Reconstruction Levy included the development and implementation of software to administer the Levy, sufficient hardware to operate the Levy, as well as a limited amount of communication equipment. The application software is called the Iraqi Customs Levy System. The full functions of the system and the associated hardware are detailed on page 2.

Iraqi Customs faces serious challenges with regard to its information technology capabilities. These challenges relate to computer and communication equipment, as well the software application they use for collecting the Reconstruction Levy. Out of twenty two Customs Posts nationwide, only 11 have computer equipment, six are using the ICLS, and only six Posts have VSATs. (page 4)

Problems with the system fall into three broad categories; Operational Management (page 4), Software Application Issues (page 5) and Training and Maintenance (page 6). Our recommendations for improvement are detailed in pages 7 through 9.

This relatively 'simple' system has turned out to be a very tough proposition. The environment, security challenges and poor management controls have all contributed to it. It does, however, highlight the challenges, and dangers, facing the Customs Commission if the Government were to push for a quick implementation of a Value Added Tax which is significantly more complicated than the Reconstruction Levy.

Notwithstanding this, the ICLS is relatively sound and with:

- increased management control and oversight;
- a dedicated IT administration team at Customs HQ to improve coordination with both the Posts and CNS/Primus;
- full usage of the automated system;
- further training;
- eradication of any software bugs; and
- further installation or re-installation of the system as needed

it is believed that this will ensure that the system will operate effectively. It is essential that the General Commission for Customs (GCC) take full ownership of the system and commit to the first three bullet points above. BearingPoint will provide assistance to meet the latter three bullets.

Further expansion or enhancement of GCC's revenue collection activities should only be considered after a period of prolonged operation of the system.

## **Background**

Under the USAID/Economic Governance I Project, BearingPoint provided assistance to the General Commission for Customs (GCC) in the development and implementation of a Reconstruction Levy that collects a basic flat levy (10%) on goods that enter Iraq from other countries. The Levy is viewed as a short-term, stop-gap measure to bring revenue into the Iraqi government by applying a levy on many goods that are imported into Iraq. This system should not be viewed as a traditional Customs importation or clearing system.

Part of that implementation included the development and implementation of software to administer the Levy, sufficient hardware to operate the Levy, as well as some limited communication equipment. The application software is called the Iraqi Customs Levy System was developed by CNS/Primus of Jordan and installed in various releases from December 2003, to April 2004. Computer hardware was procured in early 2004 to support the Headquarters location and up to 20 remote sites (Customs Posts) as well as a development effort and a training facility at HQ. From July to October 2004 six Customs Posts and HQ had a satellite network system installed. This network is to be used for voice communication and transfer of levy information between the Posts and the HQ.

## **Introduction**

### ***Functions***

The current system has the following functions:

- Registration of certain importers who can prove that they have a valid letter of credit. This letter of credit greatly simplifies bringing goods across the border because the levy payment can be made at a later date via a bank transaction and presentation of payment to the Customs HQ location. Non-registered importers must pay the levy at the border; their goods are not allowed to move into Iraq until proof of payment is presented. Another function of registration is that it allows certain organizations an exemption from the Reconstruction Levy. The Registration function is operational today at the Customs HQ location.
- The Reconstruction Levy transaction is conducted at the border Posts. All importers fill out paper forms that are then entered by a Customs official into a Post computer. The information on the form, plus information in the computer determine whether the importer pays a levy or is exempt, how the payment must be made (now or deferred), and the Iraqi Dinar amount of the levy.
- The Accounts Receivable module monitors the status of those importers that have letters of credit. This module “flags” importers that are late in paying, delinquent, or are in jeopardy of exceeding their current letter of credit amount. This module provides information for Customs HQ personnel to pursue the collection of past-due receivables.
- The Data Transfer performs the exchange of various files to and from the posts and the HQ location. The Levy transactions are exported from posts to HQ. Each PC in each post is a stand-alone system. This architecture was selected for simplicity, to eliminate the single point of failure of a server, and to minimize the need for system administration. The information on Registered importers is exported from HQ to all of the posts. Today creating CD’s that are manually transported to each post does this exchange.
- The Administration and Maintenance Module performs system functions (security, login, privileges), maintains application and system tables, and performs backup/recovery.
- The Reporting Module creates a variety of reports on importers and agents, levy amounts, registration information, currency and exchange rates, letters of credit, banks, users’

names, history, accounts receivable status, end-of-shift status and information, and payment statistical information. The majority of the reports are created at HQ. Some reports are created at the Posts.

### ***Hardware, Software, and Networks:***

The Customs Department has sufficient new hardware, procured by BearingPoint under the prior project, to operate the ICLS. The supplied equipment was as follows:

- Customs HQ has a production server, printers, switches, and PC's for the functions of Registration and Accounts Receivable. In addition, the Customs Department has some of its own PC's procured separately from the BearingPoint contract that may be available for functional use if necessary. A core switch, a router, and a firewall are currently not being used.
- MS SQL is used as the DBMS.
- Norton Antivirus, Corporate Edition is installed on both servers and all PC's.
- Visual Basic 6.0 is used as the development suite.
- Customs HQ IT department has a development server and 5 PC's and a printer.
- Customs HQ training centre has 5 PC's and a printer installed.
- Of the 22 border posts 10 have been installed with PC's, printers, and a hub/switch. A post will have 2 to 4 PC's depending on the volumes of RL transactions, and , 2 printers. These 10 posts have the Reconstruction Levy software installed.
- All servers and nearly all of the PC's have UPS's.

The remaining Posts have not yet been installed for a variety of reasons including:

- The facility cannot accept electronic equipment (no electricity).
- There is little or no security at the Post to protect personnel and equipment.
- There are insufficient personnel at the Post to operate the ICLS.
- The Post is in an area of the country that needs multiple and complex political approvals to install the ICLS.

The uninstalled PC's, printers, hub/switches, router, firewall, VoIP phones, and UPS's are stored at the Customs HQ building.

The satellite network has been installed in six Posts that have computer hardware. The network has both data and voice capability. Each installed site has one (1) VoIP phone, and more are available at the Customs HQ to be distributed as needed.

### ***Training:***

The goal of the training was to make the Customs IT department proficient in the operation and minimal maintenance of the Reconstruction Levy system. Training was provided for HQ personnel and users at the Post during the installation process by CNS/Primus.

In addition, four Customs IT personnel attended a Microsoft Windows 2003 Server System Administration course in Baghdad in December 2003 and four Customs IT personnel attended an MS Access course, and an introduction to Visual Basic in Amman, Jordan in February 2004.

## Current Situation

Iraqi Customs faces serious challenges with regard to its information technology capabilities. These challenges relate to computer and communication equipment, as well the software application they use for collecting the Reconstruction Levy. Out of twenty two Customs Posts nationwide, only 11 have computer equipment, six are using the ICLS, and only six Posts have VSATs. The following table highlights the situation:

No.	Post	Border	PC	Printer	VSAT	ICLS
1	Ibrahim el Khalil	Turkey	8	4	None	Working
2	Baghdad Airport	Air	None	None	None	None
3	Basra Airport	Air	None	None	None	None
4	Um Qasr (sea)	South	None	None	None	None
5	Um Qasr (land)	Kuwait	3	2	Working	Working
6	Abu el Fulus	South	2	1	Working	Not working
7	Khur el Zubair	South	2	2	Working	Working
8	Safwan	Kuwait	2	1	Not working	Not working
9	El Mundhaiyya	Iran	2	1	None	Working
10	Shalamsha	Iran	2	1	None	Not working
11	Hag Umran	Iran	None	None	None	None
12	Gul	Iran	None	None	None	None
13	Bashnakh	Iran	None	None	None	None
14	Tawila	Iran	None	None	None	None
15	Badr	Iran	None	None	None	None
16	Zurbatia	Iran	None	None	None	None
17	Misan	Iran	None	None	None	None
18	Rabi'a	Syria	3	2	Working	Not working
19	El Walid	Syria	3	3	None	Working
20	El Qaim	Syria	3	2	None	Not working
21	Traibil	Jordan	6	2	Not working	Working
22	A'ra'r	Saudi Arabia	None	None	None	None

Most of the information within these sections came from discussions with Mr. Isma'il, Head of the IT Department of the GCC and some of his immediate subordinates. Due to the very difficult security situation we have been unable to visit the Customs Posts to verify the information supplied or to view first-hand the operation of the system. In general, the issues communicated fall roughly into three major categories; management issues, ICLS-specific issues and training and maintenance issues.

### *Operational Management Issues*

1. Mr. Isma'il has no direct management control over the operational activities being conducted at the Posts and, as such, was not able to say with any certainty to what extent the ICLS is being used at individual border crossings. He also had no answer as to why certain Posts, which are supposed to be in a good operational shape, such as Safwan, are not using the application. The VSAT is not being used at all for the purpose of transferring data, and rarely used as a VOIP.

2. The Reconstruction Levy is supposed to be collected at all Customs Posts. For those Posts that are not computerized, a form was designed, printed in large volumes and distributed to the various Posts to use manually. The procedure was that for those non-automated Posts, copies of the form would be sent to the Headquarters for data entry into the system. None of the above has ever been implemented and the Headquarters does not receive any copies of the levy computation form, or what is referred to now as the Customs declaration.
3. No data is collected or stored at HQ on the operation of the ICLS. As such, the reporting function which should be able to create a wide variety of statistical data is idle. Various explanations for this situation were proffered; the import/export module didn't work, the staff at the Ports were unable to burn the data to a CD and when a CD was received HQ staff were unable to enter the data onto the HQ application.
4. The registration application, which was designed to register exempt organizations and large importers, is not used at all at the moment because no new importers come to register any more. The last registration entry dates back to May this year. Indeed, many of the already registered importers don't really count any more because they have not renewed their letter of credit and now prefer to 'pay' at the Posts.
5. Another issue with regard to registration is the fact that Government entities are not registered. Government entities are not exempt from paying the levy, according to CPA Order No. 38. This results in Government entities importing goods into the country and the system producing payment orders for them, which they never pay. Mr. Isma'il said that he can't force Government entities to register and actually requested that we change the system so that it allows those entities to show in the category of 'deferred payment', a feature in the ICLS to allow large 'registered' importers to pay at Customs Headquarters. He also stated that he receives complaints from staff at the Posts that some importers claim that the imported goods belong to senior Government officials and don't pay the levy.
6. More importantly, with regard to ICLS usage, his staff claim that the 'management' at the Posts dictate their own rules. In El Walid, for example, they allow them to use the system for imported cars "only" and not for other imported goods. In Traibil, however, it's the other way around; goods are entered into the system but not cars!
7. Headquarters should send the exchange rate to the Posts, during the export/import process, but obviously that does not happen and the Posts are left to use whatever exchange rate they feel applicable.
8. Currently there have been no uniform operational procedures issued by HQ to support activities at the Posts. Each individual Post has adopted its own procedures on how the system should be used.
9. It has been communicated that staff at the Posts are experiencing difficulty in the valuation of goods subject to the Levy.

### ***ICLS-specific Issues***

With regard to specific concerns about the ICLS, Mr. Isma'il relayed some of the difficulties/problems he received from users.

1. Claims were made that the import/export module does not work.
2. HQ are able to transfer the registration data to the Posts but can't download data from CDs onto the application, especially after the last 1-1-3 updated version of the application.
3. Another problem they face in the Posts is that after the end of a shift, they can't go back and change the data from that shift. Sometimes they need to do that because of an entry error. Even the administrator cannot do it. When data is changed during the shift, they are unable to print the declaration with the changes.
4. All users have been afforded the privileges of the systems administrator and therefore, the security features within the application are not being used correctly.
5. If they enter information about an importer who is exempt, the form for the following importer takes the same number of the Customs declaration as the previous one. That causes a problem if that second importer is non-exempt because no amount is indicated on the form and no receipt is available.
6. Other numbering errors happen randomly. For example, a declaration will be number one and after ten declarations another will be printed as number one.
7. Any change to the customs declaration, e.g., the importer's address, prompts the system to generate a new payment receipt, which complicates accounting.
8. When they have numbers in the description of goods, the order of words and numbers in the phrase gets scrambled. When they enter a certain amount in the form, the receipt comes out with a different amount that's usually one Dinar more or less.
9. Sometimes the system shows exempt goods as non-exempt or vice versa. Mr Isma'il expressed his desire to use the HSC.
10. Some problems have also been encountered during printing. Some printers have problems such as printing the logo and some lines only, in addition to being slow. This is further complicated by the fact that when that happens and they want to reprint, the system does not allow them to do that. When they try, this message is prompted, "the receipt has been printed".
11. Mr Isma'il wants to change the environment at the Posts and use servers instead of stand-alone PCs. He argues that it's more professional and expeditious, and they could copy the data then from one machine instead of a more machines! He also wants to continue to keep the data on the machines in the Posts and argues that it's more useful there.

### ***Maintenance and Training***

1. Customs state that a good service is received when it comes to maintaining the equipment but not the application.
2. Mr Isma'il also said that if he needs maintenance for the VSAT, he calls our local staff in BearingPoint and was unsure who is responsible for the maintenance of the VSAT.

3. As part of the original implementation there had been some discussion on the establishment of a Help Desk for the ICLS application.

4. Mr. Isma'il said that the training four of his programmers received in Amman was not enough, simply because they only got one part of the training. Another course was supposed to take place in Amman to compliment the first one, but never happened.

### ***Revenue Generation***

It is clear that the collection of the Reconstruction Levy is being applied, to varying degrees, throughout the country. The following table notes the revenue collections from its inception on 15 April to the end of October 2004:

	April	May	June	July	August	Sept	Oct	Total
Northern	1250	4337	2403	2307	1797	179	1478	13751
Southern	119	1780	2116	3053	2124	2551	2891	14634
Al-Mundhiriya	222		92	95	81	44	42	576
Zurbatiya	16	10	7	-	-	55	92	180
BIAP	32		63	138	201	223	140	797
Traibeel	317	2627	3343	4198	3461	4097	3449	21492
Al Waleed	2702		1750	1559	1112	1264	1204	9591
Al-Qa'em	16		10	18	8	15	1	68
HQ	-	124	125	100	92	62	7	510
Grand Total								62673

(figures in millions of Iraqi Dinar)

The table gives some indication of the revenue volume through the main Posts but there are some significant variances from the norm during some months which warrant further investigation.

There is, unfortunately, significant anecdotal evidence on the mis-description and under-valuation of consignments as well as hearsay that shipments are cleared at a reduced 'fee' direct to Customs staff without paperwork and that at some Posts an additional 'fee' on top of the Levy is charged for clearance of goods. This must be a concern to senior management of Customs. However, although corrupt practice is very difficult to eradicate it can at least be reduced by adopting the recommendations noted below and by ensuring that management controls and checks are applied through analysis of all available data to detect irregularities and inconsistencies.

### **Recommendations and Solutions**

Our recommendations to resolve most of the identified issues fall into the same broad categories noted in the status report earlier in this report.

#### ***Operational Management Recommendations***

Senior management at HQ can only effectively manage any activity if there are formal procedures laid down for its operation and checks are regularly applied to ensure that

operational staff are adhering to those procedures. Similarly, reports on the activity must be in sufficient volume and regularity to ensure the objectives set for an activity are being met.

In reality, the automated Iraq Customs Levy System (ICLS) provides extensive reporting capability on the administration of the Reconstruction Levy at the Customs Border Posts. This can only be achieved through the full use of the ICLS at Posts where it is installed and the data entry at HQ of those declarations processed manually at non-automated Posts. Virtually all of the problems identified within the Operational Management category above will be eliminated if HQ issues a clear procedural direction to all Customs Posts to:

- Ensure all declarations are input to the ICLS – either directly at automated Posts or through transference of the declarations to HQ for input by non-automated Posts.
- Ensure all data from automated Posts is systematically transferred to HQ on a timely basis, whether through a direct connection using the VSAT or by means of CD Rom.
- Ensure all operational staff at the Posts are fully aware of the exemptions under the Reconstruction Levy – whether these are applied to the goods or the importer.
- Ensure HQ systematically update the Posts with the appropriate exchange rate to be used for the valuation of goods.
- Ensure full use is made of the VSAT system and VOIP telephones between HQ and the Posts.
- Ensure HQ systematically update the Posts with importer registration data.

However, we recognize that this can only apply if the ICLS application is sound and free from bugs, that hardware is maintained at the Posts and that operational staff are trained and fully conversant with using the application. These points are addressed below.

### ***ICLS-Specific Recommendations***

All the perceived problems identified by the Customs IT staff have been passed to the software developer CNS/Primus (24 November 2004) and any deficiencies in the code will be corrected under warranty. Those issues which are not code-specific will be dealt with under the training component.

Customs suggestion to change the environment at the Posts and use servers instead of stand-alone PCs is not warranted at this time. The system was deliberately configured without the use of servers because:

- Many Posts have only 2 PCs, making servers a waste of time and money;
- The lack of trained IT personnel at the Posts made going with stand-alone PCs an easier and more practical option given the lack of IT skills at the Posts;
- The idea of sending information from HQ to each PC may be slightly more time-consuming, but it is simpler and eliminates the need for copying/downloading files from a server to its PCs.
- One major advantage of having stand-alone PCs is that if one is disabled, the others are still available for use. Given the conditions at some Posts the use of servers and local area networks adds complexity and single points of failure that they do not have to contend with at this time.

While the move to a configuration involving the use of servers may be more practical for some selective, larger Posts it is not recommended that this be pursued further at this stage.

Obviously, only once the system, as currently designed and installed, is being operated fully and properly and once trained systems administrators are in situ at the Posts then it may be possible to proceed.

### ***Maintenance and Training***

Maintenance of computer hardware does not appear to be a problem as the vendor has been providing satisfactory service under warranty. However, it is important that Customs initiate, from within their own resources, personnel capable of maintaining the hardware once the warranty period has expired.

Currently, problems with the VSAT have been resolved with the assistance of BearingPoint IT staff but again it is important to transfer this capability to Customs. It is believed that one Customs staff person was trained by Spacelink in May 2004 on the VSAT operations. However, Plenexis are currently negotiating with a local Iraqi company to provide the VSAT maintenance as well as an Arabic helpdesk.

The ICLS software is under warranty and it is important that Customs advise identified problems to CNS/Primus.

The successful implementation of any new system depends heavily on the quality and quantity of training and education given to users. It is clear that there are currently insufficient numbers of trained personnel at the Posts as well as a less than necessary cadre of HQ personnel who have the intimate knowledge of the system required to be able to effectively support users in the field. This gap has been brought about by a combination of insufficient training at the implementation stage as well as a general turnover of staff at the Posts.

BearingPoint are currently in the process of negotiating a Task Assistance Order with CNS/Primus which will include a physical 'gap' analysis of HQ and the Posts which will incorporate hardware, software and training needs and once these needs have been identified and agreed, to provide the necessary training.

As well as the ICLS user and administrator training we believe all staff would benefit significantly from a training workshop on valuation and methodologies associated with that. BearingPoint is prepared to develop and deliver such a workshop for users.

### **Conclusion**

This relatively 'simple' system has turned out to be a very tough proposition. The environment, security challenges and controls have all contributed to it. It does, however, highlight the challenges, and dangers, facing the Customs Commission if the Government were to push for a quick implementation of a Value Added Tax which is significantly more complicated than the Reconstruction Levy.

Notwithstanding this, the ICLS is relatively sound and with:

- increased management control and oversight;
- a dedicated IT administration team at Customs HQ to improve coordination with both the Posts and CNS/Primus;

- full usage of the automated system;
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it is believed that this will ensure that the system will operate effectively. The GCC must take full ownership of the system and commit to the first three bullet points above and BearingPoint will provide assistance to meet the latter three bullets.

Further expansion or enhancement of GCC's revenue collection activities should only be considered after a period of prolonged operation of the system.