



CENTRAL BANK OF
TRINIDAD & TOBAGO



safe-tt is a newsletter on developments in the Payments System in Trinidad and Tobago

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If you require any further details on any aspect of the reforms process, or would like to offer any suggestions, then please contact the Payments System Department at the Central Bank of Trinidad and Tobago.

Please see our full contact details on the last page.

Safe-tt

Now that Safe-tt and the GSS have gone live, please be advised that the Safe-tt newsletter will be published on a quarterly basis.



The Central Bank of Trinidad and Tobago (CBTT) celebrated yet another milestone on the 9th December 2004, when the Government Securities Settlement (GSS) system went live for treasury bills and notes. The bond auction facility will be launched by the end of the first quarter of 2005.

The GSS is inextricably linked to the Realtime Gross Settlement (RTGS) system for the funds settlement of government securities transactions. The GSS is comprised of a central depository and an auction system. The depository is an electronic register of the holders of the various government

issues and provides an online record of movements that have taken place within holders' accounts. In auctions, bids are entered from a participant institution's desktop and allocation is performed automatically. Participants can view the results at their workstations and can download reports for their use. The automated process will add greater efficiency and security to the settlement of government securities transactions and provide transparency to the

market, through a centralized and accessible record of all activity related to outstanding, locally-issued government debt instruments.

Prior to launch of the first part of the GSS, staff of the Bank was engaged in a number of preparatory activities. There was acceptance testing for the

Another important aspect of the implementation of the GSS was the migration of treasury bills and notes. This process took approximately one week and was completed just before the GSS system went live on 9th December 2004. During the migration period all information held by the CBTT on the treasury bills and notes in issue were transferred from the Bank's database into the GSS depository. This process was an essential step in the GSS system going live.

The CBTT thanks all commercial banks and non-financial organizations that participated in the preparation and launch of the first phase of the GSS system. The staff of Domestic Market Operations (DMO) department and the Information Technology Services (ITS) help desk of CBTT stand ready to assist participants with regard to any questions or concerns they may have with the GSS. We look forward to an equally smooth transition with the introduction of the government bond auction system and depository early next year! ■



Members of staff of the Domestic Market Operations Department and LogicaCMG at the Site Acceptance Testing for the GSS.

GSS, where the developers of the system took staff of the Domestic Market Operations (DMO) department on a guided tour of all requested functionalities of the system. Training then followed, with exercises being performed by participants using a test version of the new system. Member trials followed on 8th November 2004 with Government Securities Intermediaries (GSI's) and Primary Dealers (PDs).



GSS Member Trials

The Member Trials for our Government Securities System (GSS) were completed on 4th December 2004 with the final rehearsal before going live. These trials gave participants the opportunity to become familiar with the operating rules and procedures of the new system and inform the development of their own internal operating procedures. Trials began on Saturday 27th November 2004. Live rehearsals were done with the participation of GSI's and PDs. These rehearsals were run on the live GSS and RTGS systems and covered the main functional areas of the GSS such as the Intraday Liquidity Facility (ILF), Delivery vs Payment (DvP), Repositioning and an Auction. The rehearsals went very smoothly with the participants completing all requested tasks and the system functioning as expected. This final test confirmed that all was on schedule for go-live.

On the morning of Thursday 9th December the GSS began live operations; this was approximately 8 weeks after the live date of *safe-tt*. The new system incorporates Treasury Bills and Treasury Notes in the first phase and will introduce the auction of government bonds in the first quarter of 2005. The rollout and testing of the securities system was largely uneventful with participants finding the browser interface straightforward and easy to use. ■



Getting Government Involved

The Government is probably the single largest 'player' in the Payments System of Trinidad and Tobago. Not only does it receive great volumes of revenue payments, it also makes a large number of payments every month to a vast range of people and organisations. In fact it is estimated that 40% of all cheques are issued by Government. CBTT is therefore keen to help Government to use the new payment systems as soon as possible.

The CBTT has been holding information sessions with the Treasury Division and representatives from other government departments. The latest initiative was a consultation session held on 1 December 2004, attended by representatives from several key Ministries. This kicked off with a presentation by BSA consultant to the CBTT, Mr. Andrew Mason. The discussions centred around the payments reform programme, how the Government would benefit from the use of both *safe-tt* for large value payments and the Automated Clearing House called the Trinidad and Tobago Interbank payments System (TTIPS), when it comes into operation in 2005.

The Ministry of Finance is looking at some key issues that will need to be addressed for government ministries and departments to use this system. Some of the areas being looked at with the help of the CBTT are:

1. Adapting the accounting and reconciliation procedures in Ministries to cover electronic payments in addition to cheques and cash.
2. Developing the technical interconnections to enable the 'cheque writing' software installed in the Accounting Units to send electronic payment instructions to both *safe-tt* and TTIPS.



Officials at the Central Bank of Trinidad and Tobago on December 1, 2004



Participants at the meeting (L-R) – Mr. Peter Young (consultant and project manager, payments system reform), Mr. Andrew Mason (consultant and presenter at the meeting), Mr. Robert Boopsingh, General Manager Infolink Services Limited.

3. Ensuring that relevant regulations are updated.
4. Ensuring that a high level of security is applied to all payment transactions (interlinking the Government's new *Backbone* network with CBTT's *Secure Extranet*).

The outcome of the session was an agreement that Treasury and CBTT Payment Systems Department will work closely together to move as many Government payments as possible over to *safe-tt* and TTIPS. The Treasury Division is to provide resources to work with the CBTT; the CBTT would formulate a plan to work with the government in moving forward. ■



Exploring RTGS and GSS SYSTEMS in Other Jurisdictions



Frequently Asked Questions



Turkey

The Central Bank of the Republic of Turkey (CBRT) Real Time Gross Settlement system, TIC-RTGS, commenced operation on 1 April, 1992. It was later updated on 24 April, 2000. Turkey's GSS system, TIC-ESTS, began operation on 30 October, 2000.

TIC-RTGS stands for the Turkish Interbank Clearing – Electronic Funds Transfer System. TIC-RTGS transfers and settles domestic payments in Turkish liras between banks. TIC-ESTS which stands for Turkish Interbank Clearing – Electronic Security Transfer and Settlement System, is integrated with the TIC-RTGS to electronically transfer and settle Turkish government securities (95% of which are dematerialised) on a "Delivery versus Payment" (DvP) basis.

All commercial banks acting in accordance with the Banks Law (or any special financial institution acting in accordance with the related regulations or any other institution that the CBRT may allow) may participate in the TIC-RTGS/ESTS upon approval of the CBRT. As at January 2004 there were 55 participants including CBRT.

A message switching system, SWITCH, acts as an interface between TIC-RTGS/ESTS and the participating banks. TIC-RTGS and TIC-ESTS are directly connected to the SWITCH. The participant banks connect to the SWITCH through a proprietary network, TICNET. Hence, it is possible for participants to access both TIC-RTGS and TIC-ESTS using a single interface.

The CBRT charges the TIC-RTGS / ESTS participants in order to recover the investment and operational costs related to the systems' central hardware and software. The billing is per message. For payment messages, depending on the payment amount, the price may be fixed or proportional to the message amount. As for the query messages and reports, the price is calculated depending on the overhead incurred in producing the result. The fees are announced annually in the CBRT's Instruction on Tariffs.

In 2003, the highest value payments made in one day was USD24.2 billion. The average daily value of payments was USD12.5 billion.

The largest number of daily messages was 317,181 with a daily average of 175,784 messages.

TIC-RTGS/ESTS is composed of central systems (the software and hardware of TIC-RTGS, TIC-ESTS and SWITCH), participants' relay computers (RCs) and a proprietary network (TICNET). TIC-RTGS/ESTS is backed up with a Disaster Centre in order to provide operational continuity. The private network and participant systems also have backups. The business continuity procedures are tested twice a year with the involvement of participants.



Sri Lanka

The Central Bank of Sri Lanka (CBSL) implemented its Real Time Gross Settlement System (RTGS) together with the Automated General Ledger system of the Bank on the 8th December 2003. This project was a major component of the Central Bank Modernisation Programme which was jointly funded by the World Bank and the CBSL.

CBSL also implemented a Scripless Securities Settlement System (SSSS). The system enables the operation of the real time settlements of large payments combined with semi-automated settlement of government securities with scrips. The SSSS, which deals with securities settlements, facilitates the transfer of securities from one investor to another, together with a simultaneous transfer and settlement of funds through the RTGS. Sri Lanka's RTGS/SSSS schemes are known as "LankaSettle".

All payments and settlement instructions are sent through the SWIFT system, thereby ensuring the security of the transactions routed through SSSS. For other messages banks and primary dealers can use the wide area network that is operated by the CBSL.

These systems developed under the new technology, will provide the CBSL with the state of-art systems that are in par with those implemented in the developed world. The CBSL is the first in the region to adopt such a sophisticated system with both RTGS and SSSS using SWIFT communication coupled with a fully automated GL and a Treasury module. ■

During November, the Central Bank held a presentation for government officials providing the key features and benefits of *safe-tt* and TTIPS, the Automatic Clearing House (ACH). During the session a number of questions came up and two of these are the basis of our FAQ column this month.

How effective is the security in place for the Extranet?

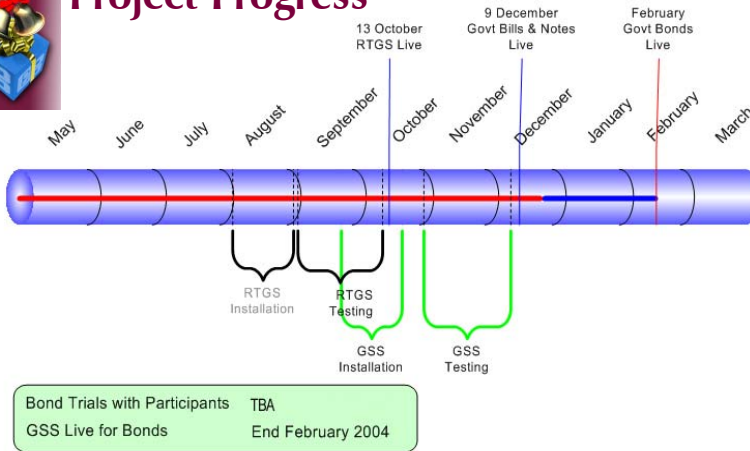
The Central Bank, in setting up the Extranet, has taken a number of security issues into consideration. Two of the major issues are authentication and encryption. We want to ensure that only the persons who should have access to the system do. Besides ensuring we have strong passwords, we have added another layer to the authentication process by ensuring that the person logging in to the system not only knows the password but must also have a 'token'. Also, we have ensured that any information which is received by the user is encrypted. Added to this, we have placed our Extranet in a secure location in our network.

In our current system payment instructions are authorised by two people signing the instruction. How can this level of authorisation be effective in an electronic system?

Electronic authorisation is more effective and convenient than using paper. In the previous answer, we explained how users logging into the system are authenticated using a 'token'. This token has a display that provides a randomly changing password. Only authorised people are provided with this token therefore the system knows exactly who the person is. To provide dual authentication a system will typically allow one person to enter details and then require a second person to log into the system to authenticate the instruction. The system holds the instruction securely until authorisation has been given. There is no chance of paper being lost, and the system can be designed to remind you that authorisation has not taken place after a preset time. ■



Project Progress

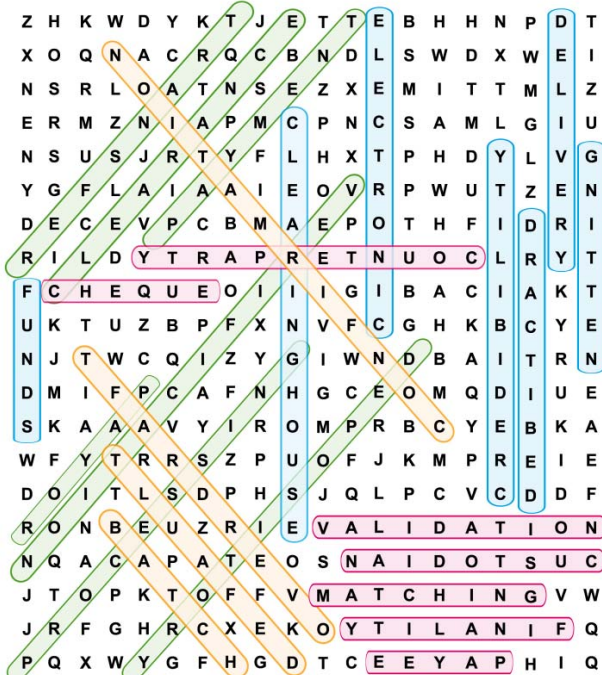


The Government Securities and Settlement system went live as scheduled on the 9th December allowing all securities except Government bonds to be issued and traded. This marks another major accomplishment in the project.

The next task is to bring Government Bonds on line, and to prepare for this we will be scheduling a short period of trialing for early February. This last aspect of the project is carded to go live by the end of February, when the implementation of **safe-tt** and the GSS system will be complete. ■



Safe-tt Word Search November 2004 Solution



Safe-tt Double Puzzle December 2004

TIDAU LIATR	<input type="text"/>	<input type="text"/>
LIINEEFACB WONRE	<input type="text"/>	<input type="text"/>
TACIAPL SIKR	<input type="text"/>	<input type="text"/>
DIALY METLETSTEN	<input type="text"/>	<input type="text"/>
TIDBE DARC	<input type="text"/>	<input type="text"/>
LCEORITCEN NEOMY	<input type="text"/>	<input type="text"/>
ROECDF TETMENTELS	<input type="text"/>	<input type="text"/>
BEOILRRCAEV RETRAFNS	<input type="text"/>	<input type="text"/>
RELGALAVEU SEATYNPM	<input type="text"/>	<input type="text"/>
ENT TDCIRE SOTNIPOI	<input type="text"/>	<input type="text"/>
FEANSRTR MYTSES	<input type="text"/>	<input type="text"/>
SURE EEF	<input type="text"/>	<input type="text"/>

If you would like to see any additional features in this publication, please send us an e-mail.

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Happy New Year

from the staff of the **Payments System Department**,
Central Bank of Trinidad and Tobago.
Until Next Year!!