

The Bank of Mongolia

Real Time Gross Settlement System

Project overview

The Central Bank of Mongolia launched the Real Time Gross Settlement System in May, 2009 within the framework of the country's financial infrastructure modernization project.

CMA Small Systems AB (CMA) Company designed the systems, adjusted it according to the national regulating authorities and legislation requirements, installed and setup it. The RTGS system is based on CMA standard RTS/X package with the support of ISO8583 interface to external SCC system (Switch Clearing Center).

The vendor was chosen as a result of the tender carried out by the Bank of Mongolia under the aegis of the World Bank. The system was launched into live operations on May 29, 2009. The supply and installation period took 9 months.

The RTGS participants are 16 commercial banks, The Bank of Mongolia and Ministry of Finance. Total number of direct participants' branches is about 1500. System is widely used for inter-branch settlement involving commercial banks' branches throughout the country. The majority of the commercial banks implemented interfaces to their Core Banking systems using CMA's software supplied by default.

System's concept

CMA's RTS/X system is based on a modern component-based business process driven approach. It offers the full functionality of RTGS with advanced risk management, monitoring and control possibilities, and integration into Capital Market infrastructure.

It provides Straight-through-processing with a range of management capabilities to ensure security and integrity. Client operations are easy, including modern GUI and APIs for integration with current systems.

Core functionality of the system is based on CMA's SWIFT-like XML standards with all the benefits of using SWIFT standards.

SWIFT BIC coding is used for the participants registered in the system which allows bank of Mongolia to be compliant with Worlds de-facto standards in payment messaging.

In addition proprietary 6-digits coding mechanism is used to identify bank/branch. This mechanism was adopted for smooth transition of Bank of Mongolia payment infrastructure to full usage of SWIFT BICs.

CMA solution makes effective use of current technologies to ensure:



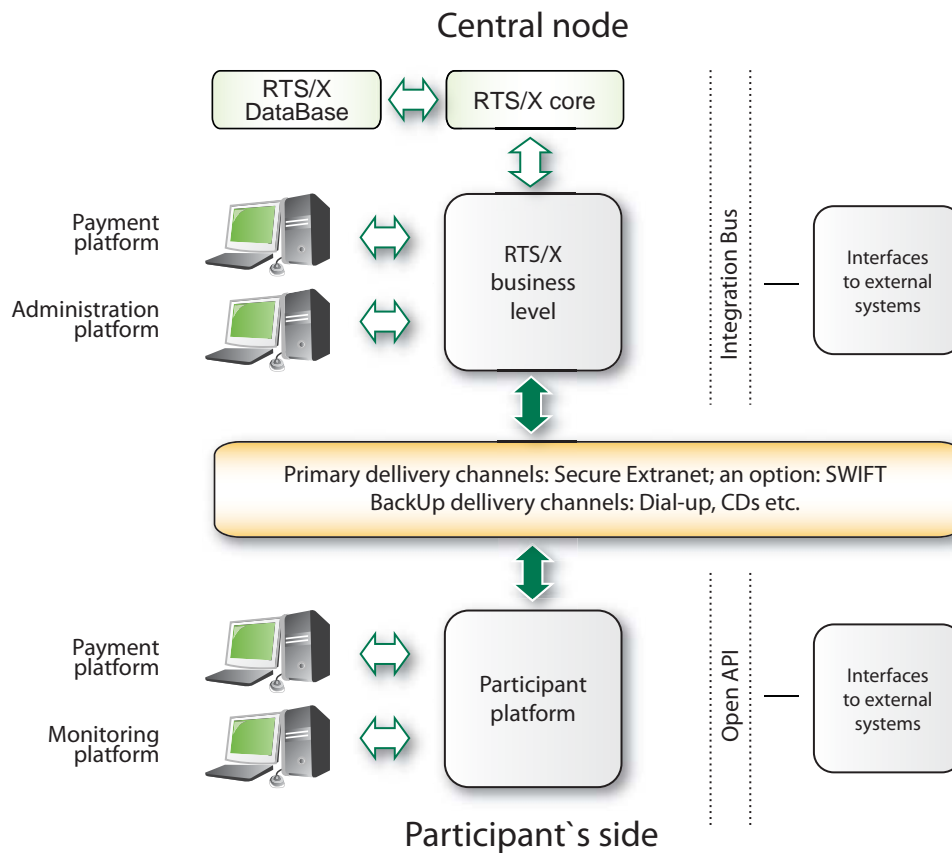
- flexibility to incorporate further functionality as needed;
- adaptability to meet changing market and regulatory requirements;
- manageability of access, process and workflows;
- reliability and scalability of both solution and infrastructure;
- system-wide security.

The system technical design has the following characteristics:

- All components are open and therefore adaptable and easily integratable.
- Interbank messages may be transmitted over secure extranet or via SWIFTNet.
- The customer interface are consistent regardless of delivery channel;
- Access management is role-based;
- The message interaction between all components, at a functional level, is managed centrally;
- Different environments may be created: production, UAT, and disaster recovery;
- System availability and performance for all components will be centrally managed;
- Resilience and high-availability is provided at all levels throughout the system.

As it is shown in the figure, the RTS/X solution consists of the following major components:

- RTS/X Central Node is responsible for RTGS system functionality;
- RTS/X Central Bank payment platform that provides GUI to Central Bank personnel responsible for payment exchange;
- RTS/X Central Bank administration platform that provides GUI for full control and monitoring of the system;



- RTS/X Participant' platform provides Participants with access to the system. This platform may have different configurations (GUI-based, API-based, mixed etc.) to fit needs of a particular Participant and generally consists of Payment platform to provide payment exchange, and Monitoring platform used for monitoring and control purposes from Participant' perspective;
- Network communication component provides information exchange between Central Node and Participant's sites

via Primary and Backup delivery channels like Secure Extranet and/or via SWIFT network.

Standards compliance

RTS/X adheres to international standards and regulations in the payment area of the Bank for International Settlements (BIS) and the World Bank. All system messages are compatible with the S.W.I.F.T. format.

The Bank of Mongolia is the central bank of Mongolia. The central bank of Mongolia is in charge of implementing state monetary policy within the territory of Mongolia. Its primary objectives are to ensure stability of the Mongolian national currency-Togrog and to promote balanced and sustained development of the national economy, through maintaining the stability of financial markets and banking system.

<http://www.mongolbank.mn/web/guest/home>