## A Brief Description of the Bank of Russia Real Time Gross Settlement System (BESP System)

The Russian economy's rising demand for urgent payments, which require faster finality and the need for reliable risk management while carrying out payments generated by financial markets and which as a rule, are large-value has compelled the creation of a real time gross settlement system in Russia.

Such systems now operate in more than 80 countries, including all member countries of the European Union and virtually all industrialised nations. In most cases, these systems are owned and operated by the central (national) banks. The Bank of Russia real time gross settlement system is called the system of Banking Electronic Speed Payment System, or the BESP system.

Taking into account long history of this issue (work on the first models of the system has begun in the mid-1990s) its design was based on the following principles:

- evolutionary, step-by-step development of the Bank of Russia payment system that would eventually make it possible to create the BESP system along with smooth functioning of the payment system and without reducing the volume of payments effected through it;
- making the most of the existing technical infrastructure and the experience gained and using the advanced disaster-resistant and failure-resistant solutions and ensuring a high level of system security and reliability;
- using the world's latest experience in building and developing such systems.

BESP system is a system that is centralized at the federal level and performs real time gross settlements of payments for all BESP system participants irrespective of their territorial location.

BESP system operates in parallel with the intraregional electronic settlement systems (hereafter - VER) and interregional electronic settlement systems (hereafter - MER) and it is functionally independent from these systems. BESP system participants also have the right to effect their payments via the payment system of the Bank of Russia applying VER and MER systems.

A credit institution or a branch of a credit institution may participate in the BESP system directly or on an associated basis. A direct settlement participant is a credit institution or its branch listed in the Directory of Bank Identification Codes (BIC) as a direct settlement participant, which carries out settlements and makes payments via the BESP system and has the opportunity to use all the services provided by this system. An associated settlement participant is a credit institution or its branch that is not a direct settlement participant and carries out settlements and makes payments via the payment system of the Bank of Russia at the territorial branch level and can use the BESP system to pass a settlement document marked 'express' through the Bank of Russia service institution. Accordingly, the associated participants cannot receive the full range of payment and information

services received by the direct participants and cannot manage liquidity or the intraday queue of deferred payments.

Payments are passed through the BESP payments system using electronic messages, which include details and other information necessary for carrying out payment.

To exchange other information in the BESP system, electronic service information messages are used.

BESP system participants are free to determine the need to use BESP system to effect payments via the payment system of the Bank of Russia.

To exchange electronic messages, participants may use the Bank of Russia telecommunication system and formats. In the future it would be possible to use the SWIFT system.

The BESP system ensures the processing of payments during the BESP system operational day, that is, from 2.00 a.m. to 9.00 p.m., Moscow Time. Payment is debited from the participant-payer's, and credited to participant-recipient's account with the Bank of Russia's servicing institution during operational day with the same calendar date as the date on which the payment was processed via the BESP system.

Payment carried out through BESP system is considered irrevocable from the moment when funds were debited from the bank account of BESP system participant—payer with the institution of the Bank of Russia and final from the moment when funds were credited to the bank account of BESP system participant - recipient with the institution of the Bank of Russia, accompanied by sending corresponding electronic service information messages to BESP system participant-payer and BESP system participant-recipient.

The BESP system can settle a payment to its full value only; partial settlement of payments is not allowed.

Settlements in the BESP system are effected using funds in the participants' bank accounts, including the correspondent accounts (sub accounts) of credit institutions and their branches, which are opened with the Bank of Russia territorial institutions, in view of the limit set on intraday and overnight credit, and through which payments are effected in the Bank of Russia payment system (including VER and MER) in accordance with banking (correspondent) account (sub account) agreement.

Liquidity of the direct settlement participants in BESP system is determined within the amount of funds in the correspondent account (sub account) of direct settlement participant with the servicing institution of the Bank of Russia, taking into consideration the limit of intraday credit and overnight credit set by the Bank of Russia to the correspondent account (sub account) of direct settlement participant in the servicing institution of the Bank of Russia, taking into consideration restrictions related to disposition of funds (sequestration of funds, and other restrictions).

There are several different kinds of payments in the BESP system: regular payments, time-critical payments (express payments), which have the highest priority, and limit payments, that is, the regular payments whose effectuation requires the maintenance of the bilateral or multilateral limit set by the participant - payer.

The BESP system enables direct settlement participants to use in real time the mechanism of liquidity management and monitoring and intraday queue management procedures and receive information including:

- the amount of funds in the direct settlement participant's correspondent account (sub account) with the Bank of Russia service institution and liquidity for the direct settlement participant making settlements within the BESP system,
- the intraday and overnight credit limit set by the Bank of Russia for direct settlement participant's corresponding account (sub account) and its use.
- the amount of expected incoming payments from other participants in the BESP system and other information.

The management and monitoring of the BESP system in the Bank of Russia is the responsibility of the Control and Monitoring Centre, a division of the Bank of Russia Payment System Regulation, Management and Monitoring Department.

The BESP system operating rules and settlement procedures as well as regulation of relations between the Bank of Russia and BESP participants are expounded in Bank of Russia Regulation No. 303-P, dated April 25, 2007, 'On the Bank of Russia Real Time Gross Settlement System,' Bank of Russia Ordinance No. 1822-U, dated April 25, 2007, 'On the Procedure for Passing Payments and Effectuating Settlements in the Bank of Russia Real Time Gross Settlement System,' and some other Bank of Russia regulatory documents, which are published in the Bank of Russia Bulletin and posted on the Bank of Russia's web-site in the Internet.

The functions of the BESP system described above will allow the participants:

- to increase economic gain from the acceleration of the funds turnover because of the carrying out of settlements in real time throughout the country;
- to receive equal access to the system services and processing of payments regardless of the participant's location inside the country;
- to achieve a more fast finalisation of a payment with a lower amount of liquidity and thus reduce the possibility of unforeseen risk in the settlement process;
- to use advanced liquidity management facilities in real time for the purpose of ensuring the optimal distribution of liquidity during the operational day, consolidating resources and efficiently monitoring a participant's liquidity;
- to reduce credit and settlement risk while making transactions on the securities and foreign exchange market, using the 'delivery versus payment' and 'payment versus payment' models;
- to share information with the system in real time and use on this basis more flexible settlement control and management mechanisms;
- in addition, multi-branch credit institutions will be able to receive information from the system from the point of view of the branches participating in it.

The Bank of Russia has set differentiated rates for its services in the BESP system, taking into consideration that direct and associated settlement participants are entitled to different services and that the carrying out of immediate and ordinary payments for a direct settlement participant involves different expenses for the Bank of Russia. The Bank of Russia has also introduced rates for a number of information services in the BESP system. The price of an immediate payment for a direct settlement participant is 30 rubles and the price of a regular payment is 25 rubles; the price of an regular payment for an associated settlement participant is 20 rubles. The price of one fulfilment of liquidity inquiry and/or balances of funds inquiry is 10 rubles and the price of fulfilment of one inquiry for other services is 7 rubles.

Following international practice, to encourage its customers to participate in BESP system and according to the number of payments, the Bank of Russia has introduced a discount system.

To qualify for participation in the BESP system, a credit institution or its branch should meet the following requirements:

- have a correspondent account (sub account) with the Bank of Russia service institution;
- comply with the Bank of Russia reserve requirements;
- not to have delayed liabilities to the Bank of Russia;
- not to have delayed debt on payment for Bank of Russia settlement services;
- not to have unpaid settlement documents to the bank (correspondent) account (sub account) with the Bank of Russia service institution;
- participate in the exchange of electronic documents with the Bank of Russia;
- comply with the technical requirements for the electronic messages exchange and information security requirements.

To initiate the procedure of joining the BESP system, a credit institution or its branch submits to the Bank of Russia service institution a request to participate it to the BESP system as a direct or associated settlement participant.

The Bank of Russia service institution notifies the credit institution or its branch about the Bank of Russia's consent or refusal to admit it to BESP no later than 15 business days after the receipt of the request.

After it has received the Bank of Russia's consent to joint the BESP system as a direct settlement participant, a credit institution or its branch:

- make sure that it has the qualified staff to handle the hardware and software designed for carrying out payments via the BESP system;
- ensures the use of the cryptographic information security devices installed by the Bank of Russia to exchange electronic messages with the BESP system;
- runs the procedure for testing the hardware, software and exchange of electronic messages with BESP.

After it has received the Bank of Russia's consent to admit it to BESP as an associated settlement participant, a credit institution or its branch:

- makes sure that it has the qualified staff to handle the hardware and software designed for carrying out payments via the BESP system;
- runs the procedure for testing the hardware, software and exchange of electronic messages with the Bank of Russia payment system at the level of the Bank of Russia's regional branch to carry out payments through the BESP system.

Based on the results of the work done, the Bank of Russia no later than 10 operational days takes a decision whether the credit institution or its branch is ready or not to participate in the BESP system as a direct or associated settlement participant.

Processing of payments in the BESP system has started on December 21, 2007.