

## CONTAINER TRANSPORTATION BY RAIL IN THE RUSSIAN FEDERATION

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### **ABSTRACT**

*Structural reforms are being undertaken by the Russian Railways (RZD). One of the important elements of reform measures refers to segregation of container transportation from transportation of other freight and positioning it as a competitive business segment. RZD has established TransContainer, a subsidiary for this purpose. The progress that TransContainer has made so far and the improvement measures that are being implemented including strategies that have been taken by the subsidiary for its growing business development are discussed in the article.*

The containerized cargo transportation plays a special role in the worldwide exchange of goods as it allows direct shipment of commodities without any transshipment. Being a secure and cost-effective technology, containerization facilitates to a maximum extent the intercontinental flow of goods shipped by a combination of land and water transport. A brief glance at the evolving processes of containerization worldwide shows that their practical implementation requires new approaches to management that can diversify business and operations of various types of transport, the railway transport in particular.

The Russian Federation is one of the largest players involved in the global exchange of goods. Occupying over 30 per cent of Eurasia, the country is a natural landbridge providing transport links between Europe and Asia. This is particularly important in view of the fact that the volume of trade between East Asia and Europe is rapidly growing and container transport by rail has the promise of providing an attractive alternative to the existing sea route for this traffic.

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Until recently the functions assigned to domestic railways were those of a mere transporter, which, to a certain extent, legally impeded development of other types of its operations and activities. The need for adaptation of the rail transport business to market mechanisms has become apparent to capitalize on the inherent advantages of rail transport in carrying large volumes of cargo over a long distance. In this situation, the containerized cargo transportation with the application of a wide variety of logistics technologies and segregation and consolidation of this type of transport operations from other types of freight carriage under a new business model is a starting point in its adaptation process to market mechanism that can utilize the natural advantages of the rail transport.

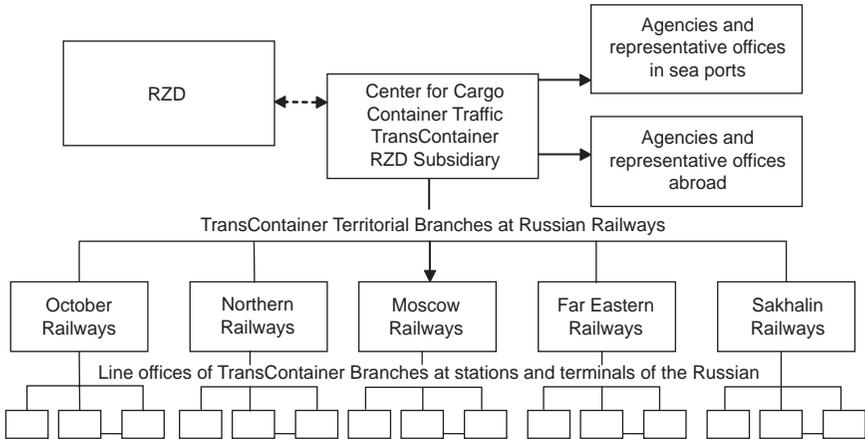
Given the current trend of development in the transportation industry, it is the rail transport that will form the foundation of the Russian container transport logistics and will play an important role as the national business integrator. The basic arrangements for accomplishing this task include the segregation of containerized cargo transportation from other commodities and placing it in a competitive business segment. It also requires determining the forms of consolidation of the container transportation business with due consideration of the specificities of the Russian railway transport system and ways of its integration with the international transport system.

An analysis showed that such arrangements for a new business model could be implemented only through a structural reform of the railway transport system in the Russian Federation. However, there is no universal standard solution for structural arrangements and management of containerized cargo transportation. Also, no typical method for the segregation of container transportation from transportation of other commodities and positioning it as a competitive business segment is available. The areas of possible restructuring depend on the initial conditions, the specificities of the legal and regulatory regimes, and the specific features of the sector under restructuring.

Accordingly, the segregation of containerized cargo transportation from transportation of other commodities and positioning it as a competitive business segment has become one of the important elements of the current structural reforms of the Russian Railways (RZD). As a result of these efforts, Russian Railways established a subsidiary – the Center for Cargo Container Traffic, TransContainer as an Open Joint-Stock Company. The organizational structure of the company is shown in figure 1. According to the new arrangement, the necessary assets (primarily container and railcar fleets) and container terminals/sites, where the flows of containers shipped by all types of transport start and end, were allocated to the newly established business entity.

Following the establishment of the open joint stock company, the TransContainer Department of the Russian Railway Ministry was transformed into a branch of the RZD and further into the subsidiary – the Center for Cargo Container Traffic, TransContainer.

**Figure 1. Block diagram of container transport logistics management and routine management of the RZD subsidiary assets**



TransContainer formally launched its business on 1 July 2006. A fleet of high-capacity containers and container platforms as well as container terminals/sites (103 terminals in total) at 47 railway stations opened for container operations were contributed to the company’s authorized capital.

The company’s business results in 2006 were assessed as positive with the net profit of about 1.4 billion rubles. The company owns 23 thousand units of rolling stock and about 50 thousand high capacity containers. A significant portion of the movable property has been renewed and expanded using the income earned by the company, which was in fact one of the objectives of the structural reforms.

TransContainer performs its business operations under contracts signed with legal entities and individuals. In 2006, the company signed over 50 thousand contracts for rendering transportation and forwarding services including the operator services.

In terms of geography and scope of the rendered services, TransContainer claims, and the fact proves it, to be the national containerized cargo transportation operator. Despite the initial problems of the transition

period, TransContainer managed to maintain positive development in containerized cargo transportation. For example, in 2006, the total cargo traffic was 21.3 million tons, which was 2.65 million tons more than in 2005. In the same period, the total number of containers transported increased by 3.5 per cent. The loaded-trip-to-empty-trip ratio decreased significantly from about 7 per cent in 2004-2005 to 2 per cent in 2006. The volume of both export and import traffic increased. The share of TransContainer in the transportation market is now 63.4 per cent, which includes transportation by using its own as well as other parties' rolling stocks. These achievements clearly indicate the existence of a growing market and positive results of investments in rolling stocks for containerized cargo transportation.

The three-level management structure developed by the container company ensures optimum combination of strategic and tactical management that are in line with the railway transport management system and provides opportunity for extending and diversifying the range of transport and logistics services. However, an assessment has revealed that a large portion of the company's physical assets, primarily the terminal facilities, requires significant restructuring and upgrading.

The planned level of investment for 2007 is 5 billion rubles, 3 billion of which are borrowed funds. Out of this total investment outlay, 1.7 billion rubles are allocated for the development of a network of branches and agencies and about 150 million rubles alone to be spent for the development of the container terminal in Zabaikalsk. But the major part of the investment is to be used in procuring modern rolling stock. The terminal services will be gradually developed. In particular, appropriate amount of funds will be allocated on an annual basis for procuring modern cargo handling equipment.

TransContainer cooperates with the Moscow State University of Railway Transport in providing targeted training for students in container transportation and logistics. The training programme of the University will be modified to become consistent the requirements of the company's core business.

At present the transportation industry, particularly the containerized cargo transportation sector, exhibits a global trend towards vertical integration. The trend is to create new business configurations through establishment of a new generation of logistics companies that combine the separate stages of goods flow, such as shipment using a combination of various modes of transportation, and storage and distribution into one logistics chain. Worldwide, many transport service providers have implemented this type of

new arrangement for container transportation. This trend in greater vertical integration in the industry has been further enhanced through advancement of technological capabilities of the service providers and through the greater use of their own terminal infrastructure and network of agencies along the key routes of freight flow.

The recent positive experience shows the prospects for development of logistics operations by the Russian Railways in containerized cargo transportation. It also indicates the ways to proceeding with the structural reforms for extending the range of transportation and logistics services as well as providing new services by the existing operators. A systems approach allows for modeling complex business processes in both short- and long-term perspectives. Based on the outcome of such modeling exercises, each business process needs to be supported by a specific structural arrangement and appropriate levels of assets together with right pricing policy, which is one of the most important tools to generate business. Redirecting the foreign container flows to RZD is especially important in this context. This goal of redirecting foreign container flows can be achieved through the provision of more attractive condition and the establishment of a network of the company's business representatives, partners and various legal entities of interest abroad.

This approach would allow TransContainer to identify the form and methods of further business development in the area of container transportation primarily by railway and with advanced technological capabilities. It would also allow to considering possible diversification of the company itself. In this respect, joint collaboration with other entities is another example of the company's new business development strategy. For example, ContainerTransScandinavia, a joint venture has been established with the Finnish Railroads to share a portion of the container traffic from Finland to the Russian Federation and vice versa. This joint effort resulted in containerized cargo transportation by the Polar Lights container freight trains running between Helsinki and Moscow.

Thanks to its new strategy for business development, TransContainer has been able to generate new businesses with other countries. The representative office opened by TransContainer in the Republic of Korea allowed the company to sign a contract with LG Electronics for the transportation of component parts for the car manufacturing industry to the Russian Federation. The expected volume of traffic is about 9.6 thousand TEUs per year. A similar representative office is being established in Germany. As a result of this initiative, TransContainer succeeded in signing a lucrative agreement with Germany-based Schenker (a Deutsche Bahn subsidiary) for joint

delivery of Volkswagen component parts. TransContainer is also engaged in other international projects. The main routes of currently operating container block trains are shown in table 1.

**Table 1. Main routes of container block trains**

<b>Main routes of container block trains</b>
Beijing – Moscow
Buslovskaya – Nakhodka – Vostochnaya – Buslovskaya
Berlin – Moscow “Eastwind”
Odessa – Moscow “Odessa”
Budapest – Moscow “Chardesh”
Pravdinsk – Saint Petersburg
Solikamsk – Saint Petersburg
Nigozero – Saint Petersburg
Ust-Ilimsk – Nakhodka – Vostochnaya – Vladivostok
Buslovskaya – Moscow
Nakhodka – Vostochnaya – Brest
Brest – Iletzk
Klaipeda – Moscow
Koity – Saint Petersburg
Saint Petersburg – Sverdlovsk
Moscow – Novosibirsk
Moscow – Krasnoyarsk
Moscow – Irkutsk
Moscow – Khabarovsk
Nakhodka – Moscow
Novosibirsk – Irkutsk
Novosibirsk – Khabarovsk
Saint Petersburg – Khabarovsk
Nakhodka – Vostochnaya – Lokot
Brest – Naushki
Muuga – Moscow

It may be mentioned here that most of these routes are along the famous Trans-Siberian railway which connects Moscow and Saint Petersburg in the west to the Pacific Ocean and port of Vladivostok in the east of the country.

Since delays are anticipated in undertaking structural reforms of the railway transport systems in some of the CIS member countries, the existing arrangements with their railways in the area of container transportation are still maintained through the representative offices and agencies established in those countries. It may be mentioned here that all the representative offices and agencies established abroad directly report to TransContainer. However, for routine operations they report to the Service Center established within TransContainer.

The specialization of container transportation management in the Russian Federation makes it considerably easier to interact on a wide range of issues with foreign business entities of a similar type as well as with international organizations working on large scale projects. In particular, this applies to the close and fruitful cooperation with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) on the issues related to arranging demonstration runs of container block trains along the Northern corridor of the Trans-Asian Railway. It is expected that such projects would make a significant contribution to integration of the Russian Federation into international efforts in developing an integrated intermodal international transportation system for the benefit of all participating countries.