

LEGAL REGULATION AND ITS EFFECT TO THE SERVICE SYSTEM OF THE INFRASTRUCTURE MANAGER

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Received: Sept. 30, 2006

Abstract

The article explains the legal background of developing railway infrastructure services and how the infrastructure managers on the basis of the legal regulation improve their service systems. As an example, the changes and the structure of the Hungarian infrastructure service system and its elements are introduced by comparison of the Hungarian Network Statement for 2004-2005 and Network Statement for 2006. Proposal for development are also given. The article gives details about the reason why such many different service systems were developed and what kind of conditions the Infrastructure Managers have to take into consideration before introducing a new service.

Keywords: legal regulation, infrastructure services, Network Statement, introduction of new services

1. Introduction

It was at the beginning of the 90s when the process of railway liberalization started and has been in process even today affecting in a wider and wider area. Milestones of the transformation process are the different EU directives, which were modified several times to reflect experiences gained in practice. Regulating element of the train path market – i.e. the charging system for the access to the railway network (former called charge for the use of the railway infrastructure) which was established in parallel with the accounting and organizational separation of railways – and the systems of infrastructure services provided to the railway undertakings are specified in Directive 2001/14/EC.

Annex II of 'Directive 2001/14/EC on the allocation of railway infrastructure capacity and levying of charges for the use of railway infrastructure and safety certification' determined the nature of services to be supplied and the element of services broken down in groups as follows:

Basic services that the Infrastructure Manager has to mandatory supply to the railway undertakings, and railway undertakings are obliged to use them (handling of requests for infrastructure capacity, the right to use the allocated capacity, use of running tracks and points, traffic control which includes signalling, dispatching, and

communication, and provision of information on train movements and information necessary for using service for which capacity has been granted).

Additional services shall be provided upon requests of railway undertakings which may only be rejected if viable alternatives under market conditions exist. These services have to be mandatory supplied to the train operator companies, but they are not obliged to use them. These services comprise the use of electrical supply facilities, refuelling facilities, passenger stations, buildings and other facilities thereof, use of freight terminals and marshalling yards, trains formation facilities, storage sidings and other technical facilities.

Supplementary services, the publishing of which is not mandatory for the Infrastructure Manager, but if he publishes these services - on request of the railway undertaking - he is obliged to provide them (traction current, pre-heating of passenger trains, supply of fuel, shunting and other services, control of trains transporting dangerous goods, running of abnormal trains).

Ancillary services, the provision of which is not mandatory (access to the telecommunication network, provision of supplementary information, technical inspection of rolling stock).

After the introduction of the EU legislation, in several countries of Europe efforts has been made in order that railway undertakings should pay for services but only for services they actually use. A way to achieve this goal is the establishment of a charging system for the access to the railway network, within this scheme the differentiation of the elements of services, the extension of the scope of services and the separation charges for services from the basic access charges.

Due to the deficiencies of the performance-measuring regimes on the one hand, and the initial stage of spreading of market-focusing principles on the other hand, most of the railways used a one-tier system at the introductory phase of the charging schemes which could distinguish a minimum number of services.

2. Introducing Charges for Services and Necessity of Differentiation

The fair competition among railway undertakings requires the compliance of both the service and the charging scheme with the needs of the railway undertakings using different services, and also, that the user of services should pay charges complying with services provided to him, that is to say he should pay exclusively for services he would actually use. This is the basis of the developing of a two-tier charging system consisting of a basic charge and charges for services, and beyond this a fair competition also requires the demonstration of differentiated, from each other completely separated services and the application of surcharges to individual services.

In addition to the foregoing, the introduction of charges for services will facilitate the

- determination of the real marketable value of services;

- transparency of the used funds; an analysing examination of the competitiveness of railway services may open up and properly support areas of further railway investments;
- comparison of cost occurring in a certain cost-collecting point with revenues arising in the same point and their analysis from the point of view of economic profitability and return, and their development needs;
- determination of the role of services they should play in the railway transport process;
- identification of ineffective, vulnerable points of the service system; regarding both services provided in an ineffective way and ineffective service locations concerning a certain service; increasing of efficiency in the field of both the railway services and the entire transport sector;
- through introducing market forces and ensuring non-discriminatory access to services, promoting accountability and reduction of costs of third parties;
- elimination of bottlenecks in services by using market-conform tools.

During the elaboration of the charging scheme for services, the crucial strategic targets of services provided by Infrastructure Managers were the comparability of costs, expenditures and revenues of services, putting an end to the unprofitable business regarding supplementary and ancillary services, making at the same time the relation of cost-revenue of services transparent and using acceptable and affordable charges.

The relation between the charge and the value of the service shall be reasonable and direct. Should the charge for services be determined on the basis of unreal costs, there is a danger of overpricing or underpricing the service. The former case leads to an inadequate utilization, the latter, to an exaggerated demand on and ineffective use of capacity. Furthermore, costs effectively arise will not be refunded, besides, further service-provision and development can also be endangered.

For the elaboration of the service pricing regime, it is indispensable to analyse the supply and demand side of the service-capacity market. The values of the different services of the Infrastructure Manager (i.e. use of stations, access to wagon weighbridge, ad hoc availability of shunting staff, etc.) have to be determined with market tools so that they should appropriately encourage market players, and parameters to be taken into account should be properly measured and controlled [2].

An appropriate determination of the service charges of the infrastructure manager has double function. It has to facilitate the optimal use of infrastructure and human resources effected by services from macro economically point of view on the one hand, and they have to ensure, on the other hand, that the user of services should contribute as much as possible to covering of costs resulting to the Infrastructure Manager from the provision of services. Besides, by the means of a sharpening price competition it should improve market chances of railway services.

In the practice, railway undertakings, permanently increasing in number, require the detachment of elements, costs of services not used by them from the basic charges and service charges, and the breaking down of services into as precise elements of services as possible, and they also require the establishment of service

packages from the elements of services and determination of their prices by which every user would pay only for those elements of services they effectively used.

3. International Practice

Former analyses [5] show that the types of the different services, their performance-measuring and accounting systems as well as the base of the categorisation of services are so divergent from railway to railway that a simple comparison with each other is impossible. The main reasons for the extremely heterogeneous service system are as follows:

Individual Infrastructure Managers have different assets, different infrastructures and staffs, i.e. the contents of the services provided are not the same.

The scope of activities of the Infrastructure Managers significantly deviates from each other.

Diversity of performance measuring and cost collecting systems. Different railways register the performances of the Infrastructure Managers according to different systems.

Rules provided by EU in the directives do not give particular guidance to the methodology of separation, do not define in details the structure of services, principle of providing services, so, Infrastructure Managers apply these rules depending on their own interpretations and abilities.

Differences mentioned above give the reason for the fact that it is not possible to find two individual Infrastructure Managers who would offer the same services with the same content under the same conditions and for the same price.

4. Domestic Situation

After the 1st of May 2004, the appearance of private railway undertakings on the railway network operated by the MÁV Rt, showed that the service system applied before, needed reconsidering. An Infrastructure Manager has to offer more differentiated services on the market which can better meet the needs of railway undertakings.

An example for this is the need for differentiation of services for shunting and serving of freight wagons depending on the fact to whom the locomotive carrying out shunting activity belongs. Contrary to the practice of the former freight transport, majority of the new railway undertakings used their own locomotives to carry out shunting and serving activities in stations. Later on there was also a demand on shunting and serving functions, to which the existence of the staff of the Infrastructure Manager was not necessary (railway undertakings have their own staffs trained and examined in certain official locations). In accordance with the above, it became necessary to distinguish charges and service elements to such an extent that railway undertakings could use and pay charges for shunting and serving

services depending on the fact whether or not they use the staff and locomotive of the Infrastructure Manager. In this way, while in 2005 the shunting and serving services could make a distinction only whether the serving of a wagon was delivered in one part or more parts, as of 1 of January 2006 differentiated shunting and serving services have been introduced depending on the fact whose staff and locomotive the railway undertaking carrying out shunting and serving activities, uses.

Similarly to the example above, demands of railway undertaking on further service elements are gradually appearing according to which also the charging scheme of the MÁV Infrastructure Manager has been transforming from year to year. For example, among the services offered by the Infrastructure Manager of MÁV, since 1 January 2006 you can find the data recording activity, access to the vehicle weighbridge and availability of shunting crew in certain cases.

5. Legislation

While implementing the provisions of the European Directives, domestic law has also issued necessary regulations concerning services. Joint Decree No. 66/2003 GKM-PM on the charge for the use of the railway infrastructure and on the charging principles has also introduced service levels similar to those of the Directive 2001/14/EC and services belonging to certain service levels. Act CLXXXIII of 2005 on the railway transport can adjust better to the provisions of Directive 2001/14/EC regarding the content and the naming of the individual levels.

Different services provided by the Infrastructure Manager can be seen in *Table 1* in a comparative way according to the old (Decree No. 66/2003 GKM-PM) and the new domestic regulation (Railway Act), mentioning the fact that the executive order to the Railway Act on services to be provided by the Infrastructure Manager within the open access, has not been issued yet.¹

The table demonstrates the level of services and their contents. It shows the similarity of the individual rules of law. All the three rules comprise two compulsory service packages, one service package compulsory in the case of its publication, and one optional service package. You can see that the domestic regulation completely follows the guidelines of the European Union regarding the content of the service packages. In the domestic regulations as the main reason for changes in the new Railway Act and the appearance of new service elements of the Infrastructure Manager can be considered the fact that the Infrastructure Manager of MÁV – after the separation of the Freight Business Unit from MÁV as the independent MÁV Cargo company – took over some new infrastructure and tasks. As such, for instance, the own-purpose railway network operated by the MÁV Zrt, some tools and equipments of the Záhony transshipment area and some services which are necessary due to the lack of interoperability of the different railway networks, can be mentioned.

¹ Date of delivery of the manuscript: 28 September 2006.

Table 1. Regulation of levels of services provided by the Infrastructure Manager

Level	Directive 2001/14/EC Content of service package	Level	Joint Decree No. 66/2003 GKM-PM Content of service package	Level	Act CLXXXIII of 2005 Content of service package
Minimum Access Package	Handling of request for infrastructure capacity, right to utilize capacity granted, use of running tracks and points, traffic control including signalling, train control, communication and provision of information on train movement and information required to use the service for which capacity has been granted	Services provided upon basic charge	Use of the railway section requested and ensured for passenger, freight transport and traction; use of open lines, running tracks, points, junctions, engineering structures, control command and signalling equipments, operation of train services (inclusive of the use of equipments needed and handling and forwarding of data) forwarding information to RU-s necessary to the running of trains	Basic services	Handling of request for rail network capacity, availability of the open access rail networks in accordance with capacity for the purpose of freight and passenger transport, traction to authorized applicant, use of open lines, running tracks, points, junctions, engineering structures, axle changing equipments, control command and signalling equipments operation of railway vehicle traffic inclusive of equipments needed and handling and forwarding of data) forwarding information necessary to the running of railway vehicles
Track to access services and supply of services	Use of electrical supply facilities, refuelling facilities, passenger stations, their buildings and other service facilities, freight terminals and marshalling yards, trains formation facilities, storage sidings, workshops and other technical activities	Services provided upon service charge	Use of electrical supply facilities for traction current, refuelling facilities, passenger stations, their buildings and other facilities, freight terminals, marshalling yards, train formation facilities, public storage siding, axle changing equipment, maintenance and other engineering facilities	Services provided upon surcharge	Use of railway stations and connecting additional services for freight trains and wagons, use of railway stations and connecting supplementary services for passenger trains and cars, Use of railway refuelling equipments and traction current facilities, Use of duty offices, at stations, open line areas and equipments, suspension of an operation break on open lines and stations, Train acceptance activity, storage of railway vehicles
Additional Services	Traction current, pre-heating of passenger trains, supply of fuel, shunting and other services, control of trains transporting dangerous goods, running of abnormal trains	Services to be provided upon charge	Supply of traction current, pre-heating of passenger trains, supply of fuel, shunting and other services, control of transport of dangerous goods, assistance in running abnormal trains	Supplementary services	Supply of traction current, Shunting and other services inclusive of border crossing services and services necessary because of the lack of interoperability of the different railway networks, Preheating and precooling of passenger trains in traffic, Forwarding of vehicles loaded by dangerous goods in trains, supplementary service in the case of forwarding dangerous goods in trains.
Ancillary services	Access to the telecommunication network, provision of supplementary information, technical inspection of rolling stock	Services provided upon service charge	Access to telecommunication networks, provision of supplementary information, technical inspection of rolling stock,	Ancillary services	Access to telecommunication network, Provision of supplementary information Technical inspection of the railway vehicles.

Network Statement – which sets out terms, conditions and procedures regarding the access to and the use of the open access railway network – has to be in accordance with regulations by decrees and laws. Network Statement comprises among others the scope of services to be requested by the railway undertakings, conditions for provision of services and charges. Joint Decree 66/2003 GKM-PM served as a legal base for the Network Statements 2004-2005 and 2006. In compliance with changes in the statutory regulation, Network Statement for 2008 indispensably needs amendments in order to comply with the provisions of the Railway Act.

6. Appearance of Service Elements in the Network Statement

Network Statements for 2004-2005 and 2006

The following part of the article shows the changes of prescriptions in the first Network Statement for 2004-2005 and also for 2006, concerning services. A summing-up comparison of the above mentioned Network Statements can be found in *Table 2*.

Table 2 can show properly that while the service of access to and use of the catenary and power supply system is in the Network Statement 2004-2005 among the basic services, the same service can be found in the Network Statement 2006 among the additional services which is in compliance with Directive 2001/14/EC and the Railway Act.

An access-to-station service for freight trains is ensured in both network statements. A great difference, a progress can be seen in the field of services relating to freight wagons where the shunting by railway undertakings for serving purposes appears as a new service element which comprises – *without* ensuring the shunting locomotive ordered from the IM, – the forwarding of wagons to public loading sidings, service and operational sidings, loading places, traction sidings, freight terminals (on connecting tracks and facilities), to technical and engineering equipments, (serving, and detach of wagons from and insert wagons to trains on intermediate stations) as well as ensuring station shunting crew. The Network Statement 2004-2005 offered a shunting service only with the use of a shunting locomotive ordered from the Infrastructure Manager, (the reason for this was the fact that before 1. May 2004 the only railway undertaking was the Freight Transport Business Unit of MÁV which carried out its shunting activities with the use of the shunting locomotive of the Infrastructure Manager).

After the separation of the Freight Transport Business Unit from MÁV Zrt – what took place on 1. January 2006 – certain assets and equipments were transferred to the property of the Infrastructure Manager, regarding which the sphere and condition of services for use of them had to be established. Demands on such new service elements came into being what required the adjustment of the Infrastructure Manager to the new situation and also required the separation of these services and the picking of them out of the services well-known and published earlier. The

Table 2. Comparison of services provided by the Infrastructure Manager according to the Network Statements

Network Statement for 2004-2005		Network Statement for 2006	
Levels	Content of the service package	Levels	Content of the service package
Basic service	Granting train path (reservation) Running of trains (inclusive of access to and use of electrical supply equipments)	Basic service	Granting train path (reservation) Running of trains
Additional services	<i>For passenger trains:</i> Use of station (for stopping) Use of station (access to stations for reversing direction) Movements of passenger trains (shunting) <i>For freight trains and wagons:</i> Ensuring access for serving purposes Shunting Ensuring access for marshalling purposes Splitting up and formation of trains	Additional services	Access to and use of services of catenary and power supply equipments <i>For passenger trains:</i> Use of station for stopping Use of station for reversing direction Movements of passenger trains (shunting) <i>For freight trains and wagons:</i> Use of departure /destination stations Use of station for serving Shunting for serving purposes Shunting for marshalling purposes Shunting by the RU for serving purposes
Supplementary services	Forwarding of wagons loaded by dangerous goods in trains Transport of exceptional consignments in normal trains	Supplementary services	Forwarding of wagons loaded by dangerous goods in trains Supplementary services in the case of transport of exceptional consignments in normal trains
Services by IM outside the scope of the track access charging scheme	Availability of duty offices and equipments at stations Availability of station and open line areas Suspension of service interruption at stations and on open lines	Services by IM outside the scope of the track access charging scheme	Handling of requests during the suspension of operation break, service interruption and service stoppage (reduced operation) Train data recording activity (external train acceptance) Ensuring of availability of shunting crew in certain cases Training and examination of staff of the applicant Ensuring of access to wagon weighbridge Vehicle storage

so-called services *outside the scope of the track access charging system* have been developed this way.

According to the above, since 1. May 2004 the number and scope of services provided to the railway undertakings have significantly been extended (services outside the scope of the track access charging system), and the differentiation of earlier well-known services such as shunting, serving, has also happened (separation of services: shunting for serving purposes and shunting by the railway undertaking for serving purposes).

There have not been any changes in the market of passenger transport. The Passenger Transport Business Unit has retained its monopoly, so the service system published 1. May 2006 has not changed either. Sphere of services published in the Network Statement 2004-2005 has also remained unchanged for the year 2006.

7. Proposal for Development

As of 2008, besides the services offered in 2006, the introduction of new service elements is to be expected depending on the market demand of the railway undertakings and the changes in the performance-measuring, cost-collecting system of the Infrastructure Manager. Conditions of the realization are: establishment of the requesting, service-provision, performance-measuring, performance-justification, accounting system.

New service elements can appear such as leasing of loading places or ensuring of traction current (for the moment these services are provided not by the Infrastructure Manager), pre-heating or pre-cooling of passenger coaches, or use of railway refuelling facilities (performance-measuring of these facilities is not yet solved, so the costs of these are included in other elements of the network access charge). Provision system and charges of ancillary services listed by the Railway Act are not yet specified, but in the future it will be necessary to establish the requesting, service-provision, performance-measuring, performance-justification, accounting system of these services, too.

8. Conditions of the Introduction of New Services

On the basis of experiences a continuous change is to be expected in the scope of services offered to railway undertakings providing freight transport services both in Hungary and in international relation in order to adjust service elements and service packages to the need of the railway undertakings, since it is the interest of the Infrastructure Manager that railway undertakings use his services to the possible highest degree.

When introducing new services or when breaking down a service in service elements, while taking into consideration market demands, we may not disregard aspects and limits of the Infrastructure Manager, either, i.e.

1. Are there any demands on the part of the railway undertakings for the new services to be introduced?
2. Can the scope of costs relevant to services be unambiguously identified? Does the introduction of the new service element facilitate the practical realization of the 'user pays' fair principle?
3. Does the Infrastructure Manager have an appropriate performance-measuring system with the use of which he is able to measure accurately and in proper details the service to be introduced? If not, can the performance-measuring

system be transformed in such a way that it should be suitable to measure the service to be introduced?

4. Is the Infrastructure Manager able to provide the service demanded, are the required resources available?
5. Does a breakdown of the service into further elements result in an unjustified, exaggerated complexity of the service system?

Summing up in accordance with the above, elaboration, differentiation of the service elements i.e. the establishment of the service system is depending on the demands of the railway undertakings and the capability of the Infrastructure Manager.

Besides the above mentioned aspects it is not desirable, at the same time, to ignore the practice, as well as the observance of prescriptions followed by the surrounding countries and the EU. The service system to be established has to be in compliance with the expectations, principles comprised by the directives of the EU, and in its structure and in the content of certain services has to be adjusted to the service system applied by the neighbouring countries, since railway undertakings providing international, transit services require from the Infrastructure Manager to establish service systems which are transparent, unique and are in conformity with each other.

As a consequence of the market competition developed among the Infrastructure Managers, it is necessary to publish an offer which is competitive with the offer of the neighbouring countries (on the basis of the quality-price relation), in order to stimulate the international railway traffic to enter the domestic railway network.

As from 1. April 2007 the separation of the passenger transport unit and the Infrastructure Manager is to be expected. Similarly to the freight transport, the entrance of new competitors to the passenger transport market will result in the widening and differentiating of passenger transport services and also the introduction of new services offered by the Infrastructure Manager to passenger trains.

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