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LEGAL TRANSITION PROGRAMME
Telecommunications Regulatory Development

COMPARATIVE ASSESSMENT of the
TELECOMMUNICATIONS SECTOR in the
TRANSITION COUNTRIES

Assessment Report  Serbia

December 2008
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I. BACKGROUND AND OBJECTIVES

Under the Legal Transition Programme of the European Bank for Reconstruction and Development (the “EBRD” or the “Bank”), the Bank’s Legal Transition Team (LTT) has focused part of its work on the development of detailed analytical assessments of the state of legal transition in a number of commercial and financial sectors of its countries of operation. These assessments benchmark the developments in each country against international or harmonised standards, providing a clear analysis of the existing legislative framework and identifying gaps and future legal reform needs.

The EBRD commenced a project in May 2008 to assess the communications sector in each of the Bank’s countries of operation. The communications sector in this context refers to the market for the supply of telecommunications services, principally fixed line, mobile and broadband services.

The EBRD’s 29 current countries of operation are Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russian Federation, Serbia (including Kosovo), Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Turkey, which has applied for EBRD country of operation status, has been included in this assessment to provide a further reference for comparison.

The purpose of this assessment is to examine whether the legal and regulatory framework for communications in the Bank’s countries of operation is sufficiently extensive to secure fundamental sector transition and reform objectives. It therefore measures the state of play in the communications sector (i.e. status, progress, level of approximation of local laws/regulations to international standards, future needs, etc).

EBRD also wishes to be in a position to assess the effectiveness of its technical cooperation efforts as well as pinpointing elements the Bank could provide new or additional technical assistance in furtherance of its mandate.

EBRD contracted consultants Cullen International SA (CI), in conjunction with Development Dynamics Limited (DDL) (the “Consultant”) to collect and analyse the required data and to prepare an assessment report (the “Assessment”).

The results from the Assessment are being published on the EBRD website (http://www.ebrd.com/country/sector/law/telecoms/index.htm) and, on a standalone basis, while summaries of the Assessment will appear in EBRD’s economic review, Transition Report (2008) and in EBRD’s legal journal, Law in transition (Spring 2009).

The specific objectives of the communications sector assessment are:

- Firstly, to provide a credible assessment of the communications sector in the Bank’s countries of operation in order to encourage, influence and provide guidance for ongoing and future legal reform efforts in those countries.
- Secondly, the information provided by the assessments can assist the EBRD to measure legal and regulatory risk in its countries of operations and in specific investment activities.

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1 Although the Czech Republic is no longer an EBRD country of operation it has been included in the Assessment for comparison purposes.
II. SUMMARY OF COMMUNICATIONS SECTOR IN EBRD COUNTRIES OF OPERATION

1. EBRD countries in South East Europe

This section includes summaries of the status of the telecommunications sectors in those countries in South East Europe (SEE) where EBRD is active. The EBRD countries of operation that are in this sub-region are Albania, Bosnia & Herzegovina, Croatia, Montenegro, Serbia (with Kosovo assessed separately), and FYR Macedonia. Turkey has been added to this sub-region, as it has applied for EBRD country of operation status, and acts as a useful comparator.

This information is copied from the first report of the study: Supply of services in monitoring regulatory and market developments for electronic communications and information services in enlargement countries”, which is being performed by Cullen International for the European Commission. This report, which has been in development from the second quarter of 2008, is planned for publication on the European Commission’s website in the September/October time frame.

The summaries are intended to provide an insight into the regulatory regime and to highlight factors that have influenced the regulatory assessment.

2. Serbia

a) Institutional framework

The Ministry of Telecommunications and Information Society (the “Ministry”) is the central state administration body responsible for telecommunications, postal services and information society. In the field of telecommunications, the Ministry is responsible for:

- drafting national strategy for telecommunications and relevant legislation;
- defining the scope of the universal service;
- preparing the Radio Frequency Bands Allocation Plan and adopting the Radio Frequency Assignment Plan based on the proposal made by the regulator;
- deciding on the number of individual licences for the provision of public telecommunications networks and services where the number of licences is limited, the timing of tender procedures and specific conditions for issuing these licences, and the minimum reserve amount for the one-off licence fees;
- executing state ownership functions in Telekom Srbija through the functions of Public Enterprise of PTT Serbia.

The Telecommunications Law of 2003 established the Republic Telecommunications Agency (RATEL), which is an independent national regulatory authority for telecommunications. RATEL is an autonomous legal entity, not subordinated to any government authority and functionally independent of any entity engaged in operating telecommunications networks and providing services. The primary task of RATEL is implementing the national telecommunications development strategy and the regulatory framework for telecommunications, adopting implementing legislation within its competencies and monitoring the compliance of telecommunications service providers with legal and licence requirements.

RATEL is managed by the Managing Board that consists of a Chairman and four Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government. Their term of office is five years with a possibility of a reappointment for one more consecutive term. The Managing Board of RATEL appoints the Executive Director of the Agency who is responsible for the administration and operational issues.

RATEL is self-financed and non-profit legal entity with its own budget funded from annual licence and authorisation fees (one-off licence fees are paid directly into the government budget), spectrum and numbering fees and other fees, such as certification and technical inspection. Every year, the Managing Board of RATEL approves its financial plan. If its annual accounts at
the end of the year show a surplus of total revenue over expenditures, it is transferred into the Government budget.

The statutes of RATEL, approved by its Managing Board regulate its internal organisation and procedures. The regulations governing the salaries of civil servants do not apply to its Managing Board and employees, which enables the regulator to decide on the salary level.

The decisions made by RATEL in the administrative procedure are final. However, it is possible, to submit an appeal against a RATEL decision to the Supreme Administrative Court.

b) Regulatory independence

Although, RATEL is functionally and institutionally separated from the state controlled incumbent operator, the effective separation of the regulatory functions from operational activities has not been achieved in practice. The ministry responsible for the telecommunications policy is also responsible for the state ownership functions in the incumbent operator, Telekom Srbija.

Presently, the government controls 80% of the company and retains a ‘golden share’ that gives the power to veto all the important decisions of the company. The Greek incumbent operator, OTE controls the remaining 20% of the capital in Telekom Srbija.

While the Telecommunications Law of 2003 provides for substantial administrative independence of RATEL in exercising its regulatory tasks and adopting implementing legislation within its competences, some of the provisions of the Law on State Administration require RATEL to obtain an opinion on compliance of the regulation with the Constitution and other relevant laws and regulations from the relevant ministry (in this case, the Ministry of Telecommunications and Information Society). The Law on State Administration also allows the Ministry as the supervisory authority to take over the performance of RATEL’s activities for a maximum period of 120 days if RATEL, despite multiple warnings, fails to perform its functions properly or punctually. These provisions can potentially undermine the administrative independence of RATEL, as illustrated by a recent development.

On June 12, 2008 the Minister of Telecommunications and Information Society passed a decision, whereby the Ministry would take over all the powers and responsibilities performed by RATEL for 120 days, starting on June 13, 2008. The arguments presented by the Ministry contained allegations of illegality, irregularities and delays in performance of RATEL. In particular, the Ministry referred to an illegal allocation of an access code to one of the mobile operators and the failure of RATEL to comply with the Ministry instructions requiring the regulator to amend some of its proposed draft regulations in compliance with the Ministry’s opinion and to suspend publication in the Official Gazette of any of RATEL’s regulations not approved by the Ministry. However, on June 19, 2008 the government decided to revoke the Ministry decision, clarifying the application of the supervisory powers of the Ministry under the Law on State Administration. In particular, the government stated that RATEL is under no obligation to amend its regulations in line with the Ministry opinion. If RATEL is of the view that it should not act along the Ministry proposal, it is still authorised to adopt the regulation. In such a case, the Ministry would be obliged to propose to the government to revoke RATEL’s regulation (if it is considered not compliant with regulations or general enactments of Parliament or the government) or to suspend the regulation initiating the procedure before the Constitutional court (if is not compliant with the Constitution and the law). The government concluded that the Ministry decision of June 12, 2008 violated the Law on State Administration.

c) Market access and authorisations

Under the Telecommunications Law of 2003, the fixed incumbent operator was granted an exclusive right until June 9, 2005 to provide all types of fixed telecommunications services, with the only exception of Internet and cable TV services that had been open to competition. In practice, Telekom Srbija is still the only licensed public fixed voice telephony operator and the only operator authorised to interconnect with international telecommunications networks.

Competition has only emerged in mobile services where two operators, Telenor and VIPnet, licensed by RATEL in 2006, are providing services in competition with the incumbent’s mobile subsidiary. To a certain extent, there is also competition in the provision of Internet services. However, most of the ISPs provide their ADSL services based on the incumbent’s wholesale offer and rely on international connectivity from the incumbent.
The delayed liberalisation of the sector is largely because of the lack of political will to introduce competition into the fixed telephone services and delayed adoption of the implementing legislation on licensing and interconnection aspects. Effective rebalancing of the incumbent’s tariffs would be one of the prerequisites for liberalisation, but so far, there have been no initiatives from the Serbian government to allow any significant changes to Telekom Srbija’s retail tariffs that are subject to price caps set by the Ministry of Finance (for comparison, Telekom Srbija’s fixed telephone monthly rental fee is the lowest among the eight SEE countries and is about 1/15 of the EU 27 average).

Another factor is the lack of a licensing framework for fixed telephony services. Under the Telecommunications Law, provision of any services that require the use of limited resources such as frequencies and numbers from the national numbering plan would be subject to an individual licence issued by RATEL based on a public tender procedure. The minimum one-off licence fee, the number of licences to be issued and the timing of the tender procedure are decided by the Ministry. Despite applications for fixed voice telephony licences from interested parties, no decision has been taken so far on a tender procedure.

d) Significant market power

RATEL has the discretion to define relevant markets applying competition law principles. However, undertakings with SMP are designated on the basis of the static 20% market share threshold, measured by number of subscribers, which RATEL may modify to 25%. Basic remedies for operators with SMP are set out in the Telecommunications Law, but RATEL has discretionary powers to decide on the application of specific obligations.

On March 3, 2006 RATEL designated Telekom Srbija as having SMP in public fixed telephone network and services and imposed obligations of network access and interconnection, non-discrimination, cost orientation, transparency, prohibition of cross-subsidisation and retail price control. On February 19, 2007 RATEL designated SBB, the major cable TV operator, as having SMP in radio and television programme distribution via cable network and imposed obligations of accounting separation and retail price control.

e) Competitive safeguards

None of the key competitive safeguards foreseen under the EU 1998 regulatory framework have been implemented in Serbia.

A strategy for the development of telecommunications in the Republic of Serbia from 2006 to 2010 was adopted by the Government in October 2006. Although the document recognises the importance of liberalisation, the objectives in the strategy and the action plan are not accompanied by any deadlines for their fulfilment. This means that there is still no basis for the entry of alternative operators, since it is unclear when the necessary competitive safeguards will be introduced.

f) Universal service and consumer issues

Under the transitional provisions of the Telecommunications Law, Telekom Srbija was required to provide “the initial scope” of universal services until expiry of its exclusivity rights in June 2005. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services.

Following the expiry of Telekom Srbija’s universal service obligations, the Ministry must define the scope of the universal service following a proposal from RATEL, while RATEL has to designate the universal provider and establish the universal service fund. None of this has been achieved yet.

g) Outlook

In general, Serbia is still at an early stage of liberalisation. The adoption of the necessary implementing legislation has been slow which is often because of the insufficient administrative capacity and the level of expertise in the relevant authorities, which needs to be strengthened. The main outstanding issues that must be addressed are tariff rebalancing and implementation of
the competitive safeguards. There is also a need to develop cost models in order to set cost-oriented interconnection tariffs.

h) Assessment

Serbia is deemed to have “Low compliance”.
Key indicators for Serbia

Regulatory spider diagram

Fixed network penetration

Mobile network penetration

Broadband network penetration

For details of the definitions of the main terms used in these graphics, please refer to "Explanation of assessment and results" in Section II of this report.
III. REGIONAL ASSESSMENTS

A. SEE countries

Regulatory assessment for SEE countries

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

Regulatory environment

Almost all countries in the South East Europe region have established an independent regulatory authority that meets the conditions defined in our assessment model. Kosovo is deemed to have the weakest arrangement because the NRA is financially dependent on the state budget, it lacks a clear requirement for consultation with market participants and only one example is provided where the NRA has acted against the incumbent operator. Nevertheless, Kosovo is ranked on par with the best countries in the CIS+M group. For dispute resolution and appeal, Albania, Croatia, FYR Macedonia, and Turkey can provide several examples of dispute cases that have been successfully resolved. Some countries have legislation that triggers automatic suspension when a regulatory decision is appealed. This is the case for Albania and Serbia. Automatic suspension can seriously weaken the authority of the regulator, in particular where the appeal procedure is lengthy. In Croatia, an appeal can take several years.

Market access

FYR Macedonia, and recently Albania and Croatia after adoption of their new laws, have established a framework with general authorisations in line with the EU requirements for all activities that do not require access to scarce resources. Serbia ranks at the other end of the scale, because it has not yet established an operational licensing regime for fixed telephony networks and services.

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2 The situation in Montenegro has changed following the passing of a new Law in August 2008, see footnote 16
The other countries have licensing regimes with some remaining deficiencies, in particular for telephony:

- Bosnia & Herzegovina have high licensing fees which may act as a barrier to entry;
- Montenegro grants licences through a tendering procedure;
- Kosovo has high licensing fees which may act as a barrier to entry;
- Turkey has restrictions on the granting of licences.

The provisions for granting rights to scarce resources are mostly correct. However, Serbia has been marked down for granting a mobile licence to the incumbent operator without a competitive procedure within the last three years.

**Operational environment**

All countries have a regime in place for market analysis and designation of operators with significant market power although it is fairly rudimentary in Kosovo.

In Albania, Bosnia & Herzegovina, FYR Macedonia, and Turkey the regimes meet or resemble the requirements of the EU, i.e. precise definition of retail and wholesale markets. In Montenegro and Serbia, the regime is still based on the 1998 *acquis* of the European Union, while Croatia is in transition from the 1998 to the 2002 *acquis*.

Most countries have designated SMP operators and established remedies to ensure fair competition. However, this has not yet happened in Montenegro. Serbia has designated two operators, but there is no available information on what remedies have been applied. Kosovo has designated an operator with a range of remedies, but only for retail markets. There has been no SMP designation yet for wholesale markets.

Albania, Serbia, and Kosovo have not yet taken steps to implement carrier selection, pre-selection and number portability. In Bosnia & Herzegovina and Croatia, these safeguards are operational, while in FYR Macedonia and Turkey they are now partly implemented.

Reference interconnection offers are implemented and operational in most of the countries. The main exception is Serbia, where a RIO is not yet established.

Only Croatia and Turkey have implemented local loop unbundling in practice. FYR Macedonia has established the enabling regulations, but cannot demonstrate that it is being used yet.

**Universal service**

All the countries meet the criteria for universal service as defined by our assessment model.

**Conclusions on regulatory compliance for SEE sub-region**

These assessments lead to the overall conclusions that:

- Full compliance is found in Croatia and FYR Macedonia;
- High compliance is found in Albania, Bosnia & Herzegovina and Turkey;
- Medium compliance is found in Montenegro and Kosovo;
- Low compliance is found in Serbia.
B. Performance against Sector Benchmarks

Information on the penetration of fixed networks, mobile services, and broadband services was collected from the EBRD countries of operation during the assessment. In most cases, this information is collected routinely by government ministries or sector regulators. In other cases, independent sources were used. In the case of the EU, fixed line penetration is no longer reported in the Implementation Report\(^3\), and we have relied on the ITU database for comparable figures. In some other countries, where figures in comparable form were not available centrally from government or regulatory sources, we have relied upon independent estimates from press releases or interviews with the main market operators.

In the graphical presentations that follow, fixed network penetration, mobile penetration and broadband penetration levels are compared within each of the three sub-regions (EBRD countries of operation in the EU, SEE countries, CIS countries plus Mongolia) and within the ETC countries, in addition to the EU with its 27 Member States. All penetration figures are expressed in terms of numbers of lines in service per 100 population.

To allow comparisons within each sub-region, and between sub-regions, the average penetration for each sub-region is shown on each graph. In some graphs, the range of highest and lowest is also shown for particular sub-regions.

For broadband, if the penetration has been estimated at less than 1 per 100 population (<1%), no figure is shown on the graphs.

For CIS+M and SEE countries, the information was collected in May and June 2008 and is quoted as the latest available (normally end March 2008). Where a date is known to be significantly different from March 2008, this is shown as a special note. For EU countries, the data relates to mid 2007.

Some information was requested during the assessment on fixed operator interconnection charges for wholesale call termination rates (the actual figures requested were from the incumbent fixed operator for local, single transit and double transit per minute call termination charges). The figures shown in our benchmarking results are from countries where the results could be reasonably compared with equivalent EU27 average results, as reported in the 13th Implementation Report. For this reason, only selected countries are shown. The figures expressed on the graphs are comparative to the EU results, using a simple average of the highest and lowest call termination charges for a country, compared to the equivalent average of the EU27 average country result. This is therefore an approximate measure of comparative interconnection charges, giving only a broad indication of the level of interconnection charges that are faced by operators in other regions, in comparison to the EU.

1. Fixed Network Penetration

Average fixed network penetration in CIS+M is around the same as the SEE region and the EBRD countries in the EU. All three sub-regional averages are significantly behind the average for the whole of the EU. Average fixed penetration in ETC countries is significantly behind all averages.

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Fixed network penetration SEE countries

Note: The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates. The penetration figures are from the annual ITU statistics for 2007.

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

The EU countries achieved their relatively high levels of fixed network penetration before the introduction of mobile networks and during their monopoly period (up to 1998), in most cases largely under state control. The average fixed network penetration in EU27 countries is 45 per 100 population. For the EBRD countries of operation that are within the EU, fixed network penetration ranges from 20 to 43 per 100 population.

CIS+M and SEE countries generally failed to achieve average EU levels of fixed network penetration. Only Belarus, Croatia and Serbia, have achieved between 30-40 fixed lines per 100 population. The remaining countries, which reached only between 10-30 fixed lines per 100 population, have achieved far greater universality with mobile networks under competitive conditions than was ever achieved with fixed lines under monopolies.

Universal service policy in EU countries now includes issues such as whether the lack of availability or non-use by a minority of consumers results in social exclusion. This means that, with universality largely achieved, the focus of the market shifts towards consumer issues such as better payment options, and better services for disadvantaged customers (for example disabled users and low income groups).
Where low penetration countries have now started to implement effective universal service policies, such as Mongolia and Russia, the focus has been not only on increasing the penetration of basic services, but also on providing Internet services.

The countries which fall below their sub-regional averages on fixed network penetration are as follows:

<table>
<thead>
<tr>
<th>Sub-region</th>
<th>Countries above their sub-regional averages</th>
<th>Countries below their sub-regional averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD countries in EU</td>
<td>Bulgaria, Estonia, Hungary, Slovenia, Latvia, Poland, Czech Republic</td>
<td>Lithuania, Romania, Slovak Republic</td>
</tr>
<tr>
<td>South Eastern Europe</td>
<td>Serbia, Croatia</td>
<td>Montenegro, Bosnia &amp; Herzegovina, Macedonia, Albania, Kosovo</td>
</tr>
<tr>
<td>CIS plus Mongolia</td>
<td>Belarus, Russia, Ukraine, Armenia, Moldova</td>
<td>Kazakhstan, Georgia, Azerbaijan, Kyrgyz Republic, Uzbekistan, Turkmenistan, Mongolia, Tajikistan</td>
</tr>
</tbody>
</table>

Fixed Network Penetration: Countries above and below their sub-regional averages

2. Mobile service penetration

The rapid penetration of mobile services has been dramatic and is now exceeding fixed line penetration in all countries. The highest performers have been Lithuania, Latvia, Estonia, Bulgaria, Czech Republic, Hungary, Slovak Republic, Montenegro, Russia, Ukraine, Croatia and Serbia, which have all achieved penetration rates over 100%. The significantly higher rate (168%) for Montenegro is reported to be a result of the high number of tourists (relative to the country’s population) that take out a temporary mobile subscription.

The lowest penetration countries for mobile are Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan and Turkmenistan, each at still under 50%. These are the same countries in the CIS+M region that have the lowest fixed penetration. In SEE, the countries with the lowest mobile penetration include Kosovo and Albania, which also have the lowest fixed network penetration in SEE.
Mobile penetration in SEE countries

Note: The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates.

The countries which fall below their sub-regional averages on mobile penetration are as follows:

<table>
<thead>
<tr>
<th>Sub-region</th>
<th>Countries above their sub-regional averages</th>
<th>Countries below their sub-regional averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD countries in EU</td>
<td>Latvia, Lithuania, Estonia, Bulgaria, Czech Republic</td>
<td>Hungary, Poland, Romania, Slovak Republic, Slovenia</td>
</tr>
<tr>
<td>South Eastern Europe</td>
<td>Montenegro, Serbia, Croatia, FYR Macedonia</td>
<td>Albania, Bosnia &amp; Herzegovina, Kosovo</td>
</tr>
<tr>
<td>CIS plus Mongolia</td>
<td>Ukraine, Russia</td>
<td>Kazakhstan, Belarus, Azerbaijan, Armenia Georgia, Moldova, Azerbaijan, Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan, Turkmenistan</td>
</tr>
</tbody>
</table>

Mobile Service Penetration: Countries above and below their sub-regional averages

3. Broadband penetration

In the EU countries, where fixed penetration is highest and the competitive safeguard of Local Loop Unbundling is obligatory on SMP operators, broadband has soared. In CIS+M and SEE, the countries that have the lowest fixed line penetration started with a major disadvantage here, with Kosovo, Montenegro, Bosnia Herzegovina, Albania, and the whole of the CIS+M region (except
Russia) have less than a 5% penetration of Broadband. Russia has achieved only 6%, despite strong investment generally in the sector.

![Broadband access penetration graph]

**Note:** The graph does not show penetration figures under 1%. The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates.

4. **Interconnection Charges**

One of the largest operating costs that a competitor faces when entering the telecommunications market is the wholesale interconnection charge that the incumbent fixed network operators make for terminating calls to their customers.

Wholesale interconnection arrangements are normally agreed between operators, but these arrangements become a main target for regulators when it is suspected that the incumbents are using their dominant position to restrict supply of interconnection capacity, or to charging higher than fair prices. Without regulatory intervention, incumbent operators with significant market power could use interconnection capacity restrictions and high charges to restrict competitors’ growth and to apply “margin squeeze”.

Regulators in the EU have successfully reduced interconnection charges, and made sure that the arrangements for interconnection are fairly applied by incumbents in an open, non-discriminatory manner. EU levels of fixed call termination charges have become the industry benchmark because regulatory action has managed to reduce these towards best practice long-run average incremental costs. This means that new entrants to the market only face modern technology-based incremental costs, and not the higher costs reflecting the historic inefficiencies of the incumbent.
Regulators in CIS+M and SEE have been less successful in applying this important competitive safeguard, as the graphs below illustrate.

![Graph showing relative fixed network termination charges for selected SEE countries]

Relative fixed network termination charge (selected SEE countries)

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

The assessment results show that generally, in countries where fixed networks call termination charges are relatively high, competition develops slower than in other countries.

Incumbent fixed network operators should not pass on their higher operating costs to competitors in the form of monopolistic call termination charges. Competitors cannot avoid paying interconnection charges, because they have to use the incumbent’s network to terminate calls to the incumbent’s customers.

This is therefore one instrument where CIS+M and SEE sector regulators could make rapid improvements in market conditions for competitors. The EU experience has now given us reliable empirical data on interconnection charges from many countries, which can be used confidently in other countries as proxies for best practice long-run incremental costs.

IV. SUMMARY OF RECOMMENDATIONS

The general conclusion of the assessment is that for countries with only low or medium compliance, the most important steps to be taken are to achieve independent sector regulation and to put in place best practice competitive safeguards (especially SMP and interconnection). Other factors such as universal service, market access (including licensing/authorisation) and

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4 In September 2008, the telecommunications regulator in Albania enforced a reduction in call termination charges to align with the EU average.
dispute resolution/appeals mechanisms are important steps, but they appear secondary when considering overall regulatory performance.

The key elements of the required reforms in medium and low compliance countries are:

- **Regulatory Independence:**
  
  First and foremost, the country’s legal framework must include the objective to establish a regulatory authority that is independent from the operators and reasonably independent from political pressure. In practice, such a legal environment may be in place, and yet the regulator does not necessarily behave in an independent and fair way. Real independence and fairness are difficult to measure in an objective way. However, the regulator has to demonstrate that it makes decisions that are fair, transparent, and non-discriminatory after taking into account the market conditions and by consulting widely.

- **Competitive Safeguards:**
  
  Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power. Firstly there have to be formal and objective procedures to identify the existence of significant market power. This procedure should ideally be based on formal market definition and analysis according to competition law principles. Once it has been established that the designation procedure is in place, the next requirement is whether the procedure has been carried out whether the SMP operators been set proportionately and effective obligations such as the need to observe non-discrimination and transparency.

  In addition, specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection are required.

  A proven safeguard is the use of a reference interconnection offer (RIO) that is approved by the regulator and published. This RIO should also apply to competitive activities of the incumbent operator. Similarly, the existence of a reference unbundling offer (RUO) and its actual use in providing services by alternative operators.

  The countries most in need of reform for making the regulator more independent are Russia, Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan.

  These same countries, plus Ukraine, Kosovo, Armenia, and Serbia would benefit most from the introduction of more effective competitive safeguards.

Therefore, the main recommendations resulting from this assessment are:

1. Continue the fast pace of regulatory reform in South Eastern Europe, and apply special attention to Serbia and Kosovo, where the reforms have been slowest.

2. Significantly increase the pace of regulatory reform in the low performing CIS+M countries, particularly Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan. The main focus of the needed reforms is regulatory independence and implementing competitive safeguards.

3. Continue reform efforts already well underway in all medium performing countries (particularly Montenegro, Mongolia, Ukraine, Kyrgyz Republic, Armenia and Moldova).

4. In countries where the dominant fixed network incumbent still charges high call termination charges (and other high wholesale fees to competitors), immediate benefits could be realised by regulatory action. Regulatory powers should be applied to enforce best practice long-run average incremental costs to be used by incumbents, and refer to EU empirical data as reliable benchmarks.

5. CIS+M countries still employing soviet-style “universal service” legacy policies should abandon these. For example:
Unbalanced tariff structures (where line rentals and/or local calls are priced well below cost and are cross-subsidised by excess profits made on international and national calls) should be phased out as quickly as possible.

The continued use state funds to subsidise loss-making services for basic fixed line rentals should be phased out in parallel with tariff rebalancing.

Legacy policies related to the use of state subsidies should be replaced in favour of more modern technologically and competitively neutral polices, as demonstrated effectively in Mongolia.

6. In order to monitor the progress of reform, and to direct the focus of technical assistance efforts, the assessment needs to be on a regular basis of at least once per year. The assessment of the EU countries is already effective with widespread and up to date commentaries are easily available. For SEE countries, where regulatory reform has been most rapid, assessment is already improving as investors focus more on this region. The CIS+M countries need a more regular flow of information in order to perform regulatory assessments equal to the detailed understanding of the workings of the EU telecommunications framework.

7. For this reason, it is recommended that a formalised country tracking system is developed which can feed into regular assessments of telecommunications markets in the 12 CIS states plus Mongolia.

V. DATA COLLECTION AND ASSESSMENT METHODOLOGY

A. Information sources

The Consultant has drawn upon a variety of sector data and information, both inside and outside each country. Some background information was readily available and easily accessible for desk research. These sources included the European Commission; the International telecommunications Union; EBRD; World Bank; together with the websites of national regulatory authorities, national governments and their constituent ministries, official national data sources, local technical and general news and industry websites, professional data sources, international organisations and institutions, etc.

For the EBRD countries of operation that are in the European (EU), i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia, plus the Czech Republic, we have relied upon the “Progress Report on the Single European Electronic Communications Market 2007 (13th Report) {COM(2008) 153}”.

The primary source of data for the assessment of the remaining countries was the country sector authorities (i.e. national regulatory authorities, sector related agencies and sector ministries).

For the countries of South Eastern Europe (SEE), i.e. Albania, Bosnia and Herzegovina,, Croatia, FYR Macedonia, Montenegro and Serbia, (with Kosovo assessed separately), the required data was collected alongside the parallel project: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries”: This is a European Commission project that was awarded to Cullen International in 2007. The first monitoring report was published on the Commission’s website5 in October 2008.

To achieve a consistent basis for the collection of data in the remaining EBRD countries of operation (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine and

Uzbekistan), a specially designed questionnaire was used. The full Questionnaire is included in Annex A.

The Consultant received a varying degree of co-operation from these authorities. Some countries have been fully co-operative, while authorities in other countries have been less responsive.

Where possible, particularly where the response of the sector authorities was insufficient or absent, appropriate alternative sources of data were referred to, including:

- Business information of interest to existing and prospective operators/investors such as licensing procedures, technical requirements, interconnection agreements, online forms for certification, authorisation etc. Here information, which explains and describes the procedures and requirements was looked for, rather than the mere formal documentation and legislation itself.

- Consumer and citizen Information: Information of interest to investors, prospective investors, end-users or prospective end-users about consumer information, universal service, consumer rights (and reporting abuses) and tariffs. In addition to actual legislation and formal guidelines, digested information was looked for, such as clear explanations (e.g. complaint procedure), and frequently asked questions (FAQs) on Ministry and regulatory websites, which will be important to the consumers.

- Telecom regulatory news and other news or journalistic based sources: This element covered information, regulatory news and developments published or available from researchers and journalists.

A full list of the people contacted in each country is given in Annex B.

Note: The information collected from the EU Member States and the South East European countries is a result of monitoring procedures and methods that have been developed over many years. The information collected from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (collectively referred to in this report as “CIS+M” ⁶) represents a first effort to collect regulatory information with a certain level of detail. The availability of information from these countries can suffer not only from a varying degree of co-operation from the authorities, but also from what is often a lower level of transparency in general when it comes to many aspects of regulations. Accordingly, the same level of accuracy should not be expected for the information presented from these countries.

The above information was collected during May and June 2008 after which an assessment methodology developed for the purposes of the Assessment was applied. This regulatory assessment model is intended as a guide to place national regulatory arrangements for the telecommunications sector into one of four broad categories: Full compliance, High compliance, Medium compliance and Low compliance

Compliance in this context should be understood as compliance with the World Trade Organisation (WTO) Reference Paper on Telecommunications Services, which is explained below. It specifically does not mean full compliance with EU regulatory framework(s). Such compliance would require much more detailed assessment than that provided by this model. Furthermore, assessment and the assessment categories are intended to provide a quick guide to the overall situation in the country. This assessment model is intended to work with a wide range of national environments. In this context, we would expect that all EU Member States would be found fully compliant according to this model. The assessment indicators are intended to be as objective and factual as possible. Value judgments are avoided as far as possible.

In the assessment, each country is given a compliance score, as follows;

Full Compliance means an assessment score of 90-100

High Compliance means an assessment score of 75-89

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⁶ At the date of the assessment the Republic of Georgia was part of the Confederation of Independent States (CIS). The CIS Council of Ministers approved Georgia’s application to withdraw from the organisation on 9th October 2008.
Medium Compliance means an assessment score of 50-74
Low Compliance means an assessment score of under 50

Note: All compliance categories are defined as ranges of assessment values; This is also the case for “Full Compliance”, which may therefore not always represent 100% compliance in the sense of a score of 100. It is the highest assessment category in the EBRD assessment model, but there may still be some aspects of the framework that have been marked down by the assessment model.

The details of the regulatory assessment model and methodology are given in Annex C.

B. WTO Reference Paper and the EBRD assessment model

Some telecommunications services, mainly value added services, were included in the Uruguay Round of trade negotiations which took place between 1986 and 1994. After completion of these negotiations, WTO Members decided to open special negotiations for trade in basic telecommunications services, such as voice telephony, data transmission and satellite services. These additional negotiations took place from 1994 to 1997 and around 70 countries agreed in February 1997 to open their markets for basic telecommunications services in a multilateral agreement. Since then, more countries have become WTO Members and/or signatories to the agreement on basic telecommunications services.

The agreement itself is complex and allows each signatory to define its own set of commitments, i.e. which services can be open for international competition, the categories of business models that would be allowed and whether to extend these commitments to other countries or not, through most-favoured-nation clauses.

The agreement also includes provisions for how this international competition shall be regulated. This is done through a “Reference Paper”, which defines a set of regulatory principles for the establishment of fair market conditions. In the context of the trade negotiations that took place, the countries were given the choice of making a formal commitment to accept the Reference Paper. Most of the WTO Members made this commitment. At this time around 75 countries, including the EU Member States, have accepted the Reference Paper. From a legal point of view, a commitment to the Reference Paper means that it is part of the international treaty and therefore binding on the WTO Members.

The WTO Reference Paper is a short 2½ page document that sets out rather broad and general principles which have achieved a high degree of consensus. Its main points are:

- Competitive safeguards
  - Prevention of anti-competitive practices
  - Safeguards
- Interconnection
  - Interconnection to be ensured
  - Public availability of the procedures for interconnection negotiations
  - Transparency of interconnection arrangements
  - Interconnection: dispute settlement
- Universal service
- Public availability of licensing criteria

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7 The full name of the agreement is Scheduled Commitments on basic telecommunications services annexed to the Fourth Protocol of the GATS (15 February 1997)
8 http://www.wto.org/english/news_e/pres97_e/refpap-e.htm
Independent regulators
Allocation and use of scarce resources

By comparison, the EU framework is set out in several directives with around 100 pages of detailed specification of how these principles should be implemented.

The EBRD assessment model is based on the WTO Reference Paper, but many of the specific indicators are drawn from the examples provided by the EU framework. The structure of the assessment model is as follows:

- Institutional framework
  - Regulatory independence
  - Dispute resolution and appeal
- Market access
  - Access to non-scarce resources
  - Access to scarce resources
- Operational environment
  - Safeguards
  - Interconnection and special access
- Universal service

A full description of the EBRD assessment model is provided in Annex C.

C. Explanation of assessments and results

1. Spider diagram

A spider diagram presents the main results of the Assessment. It includes six main group indicators. For each indicator, the diagram presents the scores as percentages of the maximum achievable score. The scores begin at zero at the centre of the chart and reach 1.00 at the outside, so that in the overall chart, the wider the web, the better the scores in the assessment.

This type of diagram is useful because it provides a summary of the assessment at a quick glance. However, it is not able to show the relative weight given to each group indicator. Nor is it able to present negative values. This means that it cannot include universal service, which is handled in the assessment model by the alternative means of applying a negative score to unsatisfactory results. Where this occurs, it is mentioned in a note below the diagram.

For a more detailed description of the assessment model, see Annex C.

The six group indicators shown in the spider diagram are:

8. Regulatory independence – maximum 22 points

This group indicator is intended to show whether the legal framework includes a regulatory authority that is independent from the operators, reasonably independent from political pressure and with sufficient powers to regulate the market.

9. Dispute resolution and appeal – maximum 10 points

Points have been assigned where the National Regulatory Authority (NRA) has the power to resolve commercial disputes between operators and can demonstrate that such disputes have been resolved. The group indicator also assigns points where there is a reasonably efficient appeal mechanism. Most countries have the possibility to appeal a decision by the NRA to the administrative court system. But a country has points taken away if the appeal procedure takes too much time or if the appeal mechanism is not being used.

10. Market access wired – maximum 20 points
This group indicator looks at the authorisation framework for networks and services that do not depend on scarce resources. A country has points taken away if there are services that are not open to competition, if the licensing fees are high and if the authorisation framework is complex and there is uncertainty whether licences will be granted.

11. Market access radio – maximum 10 points

This group indicator looks at whether the regulatory framework provides certainty for non-discriminatory access to radio spectrum. It also considers whether numbering resources are available to all operators.

12. SMP and safeguards – maximum 20 points

Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power.

The model identifies if there are formal and objective procedures to identify the existence of significant market power. It assigns a higher value if this procedure is based on a formal market analysis according to competition law principles and a lesser value if a simpler procedure based on market share is used.

In addition, the assessment model looks for specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection.

13. Interconnection and special access – maximum 18 points

This group indicator gives points for the existence of a reference interconnection offer (RIO) that is approved by the NRA and published. However, a country has points taken away if the legal framework does not set out requirement for non-discrimination for RIO usage or if there is little evidence that the RIO is being used.

Similarly, the assessment model looks for the existence of a reference unbundling offer (RUO) and assigns value where a RUO has been approved and additional points if it is used to provide services by alternative operators.

14. Universal service

The WTO Reference Paper does not require a universal service policy. But if such a policy is implemented, it should meet certain criteria:

- the objectives should be reasonable in light of the national economy and the status of the network(s).
- the objectives should be expressed in a form that is technologically neutral. (For example, they should take into account the contributions of mobile networks to the provision of universal service.)
- the obligations arising from universal service obligations, which may be a funding requirement for some of the competitors, should be non-discriminatory, competitively neutral and not overly burdensome. They should not be perceived as a barrier to market entry.

If these criteria are not met, a negative value may be assigned. Spider diagrams cannot reflect negative values. Where such negative values occur, it is mentioned in a note under the diagram.

2. Fixed network penetration

This chart provides the fixed network penetration defined as active subscriber lines as a percentage of population. The averages are defined as follows:
The EU average is the average for the EU Member States as reported by the Commission Staff Working Document of June 28, 2006 on the Review of the Scope of Universal Service in line with Article 15 of Directive 2002/22/EC. (SEC(2006) 816).

The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Kosovo as reported in Cullen International’s first report of the study: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries” for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.

The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.

The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

3. Mobile network penetration
This chart provides the mobile network penetration defined as active pre- and post-paid subscribers as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13th Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International’s first report of the study: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries” for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
- The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

4. Broadband network penetration
This chart provides the broadband network penetration defined as the number of access subscribers with speeds of 144k/bits or more as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13th Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International’s first report of the study: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries” for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

Note: The date of the main information used in this assessment is April 2008. Changes that we are aware of that have occurred since Spring 2008 have been incorporated in the report with appropriate footnotes/references. There may have been changes that have occurred that we are not aware of, in which case we would welcome readers to send in details with appropriate reference sources. The regulatory assessment results have used the April 2008 information in order to present a consistent set of results for comparison purposes. Any new information will be used in a full update of the assessment, recommended for 2009.