Work Step 3

We selected a sample from the post-separation Telekom Srbija fixed assets listing as of 1 June 1997.

A sample of switches to be verified was selected from the listing provided by Department of Telecommunication Traffic of Telekom Srbija and item by item agreed to the Telekom Srbija post-separation fixed assets listing provided by Accounting Department (fixed assets ledgers).

For cabling network and VF devices a sample was selected from the Telekom Srbija post-separation fixed assets listing provided by Accounting Department.

For vehicles, which were subject of transfer from PTT to Telekom Srbija, we completely relay on work done by PW auditors.

Our sampling approach was to select the fixed assets for performing telecommunication business.

As mentioned above the selected samples are as follows:

In million of Dinars

Fixed asset	Total	Sample	In %
Switches	5.463	1.415	25,90
Cables and other assets	14.550	2.976	20,45
TOTAL:	20.013	4.391	21,94

For physical verification of fixed assets as required by Step 3 /1/ of Work Plan, we selected the following sample:

Switches

The sample for switches was selected from the following working units:

- Telekomunikacije
- Mrezna grupa
- Gradski telefon
- Pancevo
- Nis
- Novi Sad
- Sremska Mitrovica
- Subotica
- Uzice
- Kraljevo

Details of the above sample are presented as an Appendicies to SIN and OTE engineers.

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The above sample and details presented appropriate appendicies were used for two purposes:

- to satisfy the purpose of Work step 3 /i/ of our Work plan - Section Fixed assets;
- to satisfy the purpose of Work step 3 /i/ and /ii/ of our Work plan - Section Number of Paying Subscriber lines.

Cable Network

The sample for physical verification by our auditors and check of assets technical characteristics and operation of cable network by SIN/OTE engineers was selected from the following working units:

- Gradski telefon
- Telekomunikacije
- Novi Sad
- Sremska Mitrovica
- Zrenjanin

Details of the above sample are reported as an Appendicies to SIN and OTE engineers reports.

Matters Arising

For fixed assets included in the selected sample physical verification of existence was performed by our auditors and by SIN/OTE engineers.

/i/ Physical verification by our auditors

Assets description was mainly agreed for switches and VF and PCM devices.

However, description of cables (arrial and terrestrial) do not agree between Maintenance Department of working units and Accounting Department (fixed assets ledger).

Major difference between above descriptions is that Accounting Department describes cables as "network" (local and interlocal), whileas Technical Department describes cables one by one by numbers describing their technical characteristics (i.e. type, capacity - number of pairs, system - analog or digital; type of isolations, etc.).

Due to the above differences in descriptions it was not practicable to reconcile the correctness of inventory numbers selected from fixed assets ledgers to those assumed to be recorded at particular working unit for an individual fixed asset.

/ii/ Physical verification by SIN/OTE engineers

Work performed by engineers for physical verification of switches is summarized in the following report:

DRAFT - PRELIMINARY AND TENTATIVE, FOR DISCUSSION PURPOSES ONLY

"REPORT

By Christodoulos GOGILIS and Christos KAPETANAS after our visit to SERBIA for validation of capacity of TELECOM SERBIA's telephone exchanges.

The purpose of our visit to SERBIA from 30/1 to 9/2/98 was to verify the following Telecom Serbia exchanges:

1) Existence of the switch
2) Type of the switch
3) Installed capacity (in subscribers and trunks)
4) Used capacity

The switches we had to inspect were included in a catalogue prepared by BC EXCEL. This catalogue referred to 100 switches that cover 25% of the total telephone capacity. The on site inspection was to be done by two groups the Italian and the Greek in the following areas:

(a) BEOGRAD (Primary area, where we inspected 16 out of 25 referred switches, as scheduled)
(b) NOVI SAD(Primary area, where we did not inspect due to lack of necessary time 2 out of 26 switches in KAS and Prilagodna)
(c) SUBOTICA (Main area with 7 areas)
(d) SREMSKA MITROVICA (Main areas with 7 switches)
(e) PANCEVO (Main area with 10 switches)

Due to the large amount of exchanges (65 for our group), the fact that they are located only in the capitals of the area they belong to, but even at distances of 60 km from them, the variety of the switches' type and the limited available inspection time, it is obvious that checking all elements one by one was impossible.

We used the following inspection method:
At first we used to visit the most important exchange (primary, main or nodal) of every are. From that exchange which was usually a digital one (AXE -10, EWSD, ALCATEL), we easily obtained a picture not only of the specific switch's elements but more important a picture about the whole local network (via the routes to the other exchanges). For the inspection of the analog switches, we counted the subscriber meters, PCBs or racks, we examined the general exchange diagram, we collected statistical data from central and local authorities, we asked for data kept in Main Distribution Frames and administration departments and finally we analytically checked and counted one by one the trunks of specific route(s) for which we had already collected data from the cooperating switch (usually a digital one).

The cross checking of all these data we collected, showed as a conclusion, that the elements referred in the BC EXCEL list are, in general term, correct. In some cases where we observed small deviations, it was due to the usual day to day subscriber connections - disconnections and the optimization of the telephone network (by installing new exchanges and enrichment of the existing ones).

This document is accompanied by a 3 page list with data of the inspected exchanges.

Signed by

CH. GOGILIS
CH. KAPETANAS"

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DRAFT - PRELIMINARY AND TENTATIVE, FOR DISCUSSION PURPOSES ONLY

• Work performed by the engineers relating to physical verification of cables and samples selected for capital WIP project in Belgrade is summarized by OTE and SIN engineers in the following reports:

➧ "Group of OTE Engineers — Belgrade 23-7-1998
Dimosthenis Kominis
Dimitrios Chronis

REPORT

on operational verification and checking of fixed assets of TELECOM SERBIA.

Following the work program of BC EXCEL, with the task of physical verification of the existence and operability of a sample of fixed assets in various working units throughout Serbia, we visited several sites of the sample and, with the close cooperation of the local staff, we came to the following conclusions:

It was realized that, under each inventory number given, a wide variety and large number of infrastructure or equipment is meant, creating so a significant degree of uncertainty about the real content of each inventory number, which, as it was described by the local staff, is more confusing, as two numbering systems are existing, without compatibility. Also, the numbering system varies from region to region, increasing so the said uncertainty. Obviously, a much more detailed description of the participating items, one by one is necessary, a task that needs an extended amount of resources to be realized. Our impression nevertheless, is that this work has to be done in the future, if a more accurate figure of the assets of the company is to be achieved.
It was also realized that, under the circumstances, and due to the limited resources available to us, (time and measuring equipment), it was impossible to figure out the quality levels of the items included in each asset (cable, transmission equipment etc.). Again we believe that such a task has to be performed in due time, in order that a realistic aspect of the operability of the network will be achieved.
During our investigation, a number of installations (mainly cable vaults in the exchanges), were not accessible, thus not permitting to us a thorough understanding of the installation.
As a consequence of the above factors, the output of our investigation can only figure out, a general sense and understanding of the existing infrastructure and equipment, i.e. what is the impression that the investigated equipment gave to us, concerning their physical existence and operation. Nevertheless, according to our experience on similar installations, we feel able to give some qualitative dimension of the investigation, as follows:

4.1 Cable infrastructure.
All cables investigated, are of paper insulation and lead sheathing (mainly without armouring), but without air pressurization, and the cable joints are not corrosion protected.
The copper conductors at their termination on the relevant strips (at least 50% of them), are not soldered, but simply wound on the terminations.

These factors create us serious suspects, that the transmission quality of this infrastructure is intensively effected by environmental factors such as water or humidity ingress and will not be compatible with the needs of raised transmission needs.

4.2 Duct infrastructure

The general impression from the infrastructure is fairly good, given the extension of the duct network and it's capacity in ducts. The size and available space of them, is satisfactory.

Concerns exist only on the condition of those ducts which are made of concrete.

4.3 Transmission equipment

The operational conditions of the above assets, have been realized checking them macroscopically, by means of being in use. The impression about the functionality of transmission systems varies according to the age, technology and the maintenance support due to lack of spare cards, and low variety of the existing interfaces. However a reliable approach about the transmission systems performance can be extracted.

4.3.1.Analog systems

First impression is that analog multiplexers are transporting voice services properly but these systems have serious limitations on transporting data.

4.3.2 E1 transmission systems

They seem to work properly for voice transportation. Transmission of data is much less tolerable so a more detailed procedure of checking and measuring must be followed.

4.3.4 E3 and E4 transmission systems

The above PDH equipment consists of the latest versions of the given technology and the majority of SDH signals is transported over optical fibers.

4.3.5 SDH transmission systems

SDH equipment consists of ADM-16, ADM-4 and ADM-1, parts of SDH rings, synchronized properly resulting a good performance.

Attached we submit three Tables for each of the above group of assets, with a more detailed description of the investigated assets.

Signed by

Kominis

Chronis"

Work performed by engineers, on a sample selected, is presented in Appendix I.5.

DRAFT - PRELIMINARY AND TENTATIVE, FOR DISCUSSION PURPOSES ONLY

"REPORT BY SIN ENGINEERS

Introduction

According to our mandate we made a survey to the cable equipment under the responsibility of Zrenjanin's, Beograd Telecommunications and Gradski telefon units.

We met people from those units and gathered relevant information we asked for.

It is important to stress that our report is based on the main data provided by the units, therefore those data are to be considered as a "starting and steady point" for our considerations.

Owing to the limited time we had to carry on our survey we could not do a deep analysis on the conditions of the cables, but, of course, we are in a position to make remarks and recommendations based on our experience of one of the most advanced operators.

A brief description of our visit to the units follows and some general and important remarks are added as a conclusion of our work.

Survey at Zrenjanin - Thursday, the 23rd of July 1998, half a day in the morning.

We had first a meeting with the Director of the unit and we could shortly examine the cables documentation related both to the coaxial cables and to the terrestrial cables. Terrestrial cable in our understanding is the distribution or access network. At first glance this documentation seems to be rather good.

Then, we were accompanied by the Director to the inspections of the coax. cable. The cable seems to be in working state also from the point of view of air pressurization.

Further, we visited the 3 access networks of Zrenjanin, Becej and Elemir where we made inspections to the cable pairs at the points of connection of the cable primary network - i.e. ducts of cables' arrival - to the local exchanges. The inspections, in general, have shown a fairly good working conditions, in terms of relatively clean equipment rooms.

Telecommunications unit Beograd, the 23rd of July in the afternoon

Before starting the visit we had a meeting with the responsible of the unit and acquired information on the cable network to be considered and shortly examined the relevant documentation. The responsible told us that most of the coaxial cables were not air pressurized, but, during the inspections we realized that even when the cable was registered as air pressurized the system did not work. So all the cables are to be considered without air pressurization.

Furthermore, we have also found out that the equipment room and the environment of the cable termination were not suited to host telecommunication equipment.

In this regard we want to stress the following points:

- air pressurization is needed to guarantee a certain degree of service, otherwise one is not able to assess whether the cable is into operation or not;
- in order to verify the real conditions of the cables an extensive measurements campaign should be done;
- if the equipment is not installed in a proper way, i.e. clean environment, clear identification of equipment etc, it will be difficult to make an efficient and reliable maintenance.

Visit to Gradski TelefonUnit, the 24th of July 1998, in the morning

We followed the same procedures as those of the previous visits, i.e. discussion with the responsible of the unit and examination of the relevant cable documentation.

We got the following information:

- the topology of the distribution network (terrestrial cable) is not based on primary and secondary network, so that its expansion is subject to a much lower flexibility;
- in case of bad weather conditions (rain, humidity) the cable pairs are affected by a certain loss of insulation and the service is impaired correspondingly; as a matter of fact no cable is air pressurized;
- measurements about the service quality parameters are not practically performed.

Then we visited the following sites: Zvezdara, Tošin bunar, Novi Beograd, Karaburma, Vozdovac, Konjarnik. As a general remark we found that those sites were equipped in a similar way, i.e. duct, cable pairs, connections to the local exchanges, the only differences being based on the year of installation.

The attached Tables summarise some of the main parameters defining the characteristics of the equipment visited.

Signed by

Guido Possenti

Beograd, the 24th of July 1998 Gianfranco Jesu"

Work performed by engineers, on a sample selected, is presented in Appendix I.6.

Work Step 4

We obtained a rollforward of fixed assets of PTT from 31 December 1996 to 30 June 1997 detailing all additions and disposals in that period. The rollforward of fixed assets was detailed by Working units.

We footed all individual and summarized rollforward analysis into totals at the level of PTT.

We have prepared a Summary of rollforward figures of fixed assets and present it in Appendix I.7.

We agreed the total balance as of 31 December 1996 and 1 January 1997 with the PTT trial balance as of 31 December 1996. No any further verification work was performed.

Total PTT fixed assets, after reclassification of fixed assets to investments which were invested into Telekom Srbija, agree to the balances in the summarized rollforward as of 30 June 1997.

We were unable to agree amounts shown in the Summary of rollforward as "Transfer to Telekom" with the opening balances of Telekom Srbija because approximately 90% of fixed assets were posted in Telekom Srbija books on the basis of Ces Mecon valuation listings.

Amounts representing additions summarized from rollforward data from PTT do not agree with adjustments of the Telekom Srbija opening balances summarized by Telekom Srbija as of 1 June 1997.

1.3. Summary of issues

We have reported our findings, in details, under the appropriate work step employed.

Although we are generally satisfied, based on the findings from our sample that telecommunication business fixed assets were physically transferred from PTT to Telekom Srbija, we would like to point out the issues which could be the subject of further concerns by Telekom Srbija management and the shareholders of Telekom Srbija:

1. Remarks raised by SIN and OTE engineers in its reports, regarding physical and technical verification of fixed assets should be carefully considered.

2. Balances treated as opening fixed assets balances posted into fixed assets ledger (and fixed asset register) and related fixed assets accounts in General ledger, represent the amounts derived from CES Mecon valuation. The values of individual assets and general ledger fixed assets accounts do not correspond with values stated in relating books of accounts of PTT as at the date of separation, due to various reasons explained in details in this Section. This could affect the total value of fixed assets and related resources, presented in the Telekom Srbija books, as of 31 Decembar, 1997.