

LS summit 2006 11th Annual Seminar Day



Subjects of this issue

- SMS System at OMERT
- H3G Italia selected CHIRplus_BC
- ITU-BDT Regional Network Planning Workshop
- Integrated System for Broadcast Frequency Management to CSA and HACA
- Acquisition of Spectrum Management Business Unit of CTS International
- Training Center News
- Immission Analysis
- Usergroup Meeting 2006
- LTA Lesotho Maintenance Agreement
- TRC extends Maintenance Contract

Dear Readers,

On 5th July, LS telcom organized already for the 11th time the well-known LS Summit, where every year experts in the field of radio and frequency management meet from all over the world. In this year, 150 guests from more than 22 countries joined this exceptional telecommunication event. Beside visitors from Europe, also delegations from Indonesia, China, Taiwan, UAE and Canada traveled to Lichtenau.

Frequency planning and management trends as well as scientific topics, for example in the field of radio astronomy could be found on the agenda of this year's conference. Valuable and visionary presentations of renowned speakers invited the conference guests to take part at interesting discussions.

The exhibition, taking place at the same time, allowed our guests to get helpful information on innovative products and services of LS telcom. Especially the numerous new software developments and the expanded portfolio of services met high interest. The participation of Rohde & Schwarz, Kathrein, Roda and Thales as partner companies also presenting their high-tech-products, made the exhibition even more exceptional.

As already tradition in the past years, two days before the LS Summit, the Users of LS telcom software met in Lichtenau to exchange their experiences with other Users and Producers of the software. This year, the self-organized and regularly increasing Usergroup could celebrate their 10th anniversary and as usual supplied valuable impulses concerning the future product development directly from the user's view.



Roland Götz,
Member of the Board



Spectrum Management System officially handed over to OMERT, on 31st August 2006

On 31st August 2006 the spectrum management system SAGSF (Système Automatisé de Gestion du Spectre des Fréquences), provided by LS telcom was officially handed over to OMERT (Office Malagasy d'Etudes et de Regulation des Telecommunications), the regulating authority of Madagascar. Our partner Rohde & Schwarz in Munich provided the monitoring part, consisting of several monitoring stations and a mobile vehicle in this project. In a small inauguration ceremony all parties emphasised the importance of the complete system for managing and monitoring frequencies in Madagascar.

SAGSF consists of the SPECTRAplus core system for administrative and

billing purposes. In the implementation phase various adaptations according to OMERT's needs, including a highly complex fee calculation amongst others have been implemented. The entire project, including documentation and SPECTRAplus software has been localized into French language. For visualization and technical analysis (planning, compatibility analysis and frequency assignment) the SPECTRAemc tool is installed on site. SPECTRAplan is used for the verification of compliance to the ITU frequency plan (WRC 2003) and maintaining the national frequency plan of Madagascar. After the start of this project in 2005 and a successful factory acceptance, the project was a complete success.



OMERT delegation

LS telcom succeeds in Military Market

The frequency management solutions for military environment are well accepted by our customers. After having received system extension orders from the Netherlands and German military recently, LS telcom now also was contracted to extend the spectrum management systems of the armed

forces in UAE and Egypt.

LS telcom offers dedicated solutions for military frequency management applications (NARFA and reconnaissance) based on the well known SPECTRA system, and the particular SPECTRAmpt module.

H3G Italia selected CHIRplus_BC

Hutchison-Whampoa-owned 3 Italia (H3G) has become the first service provider to launch DVB-H services in Europe. Broadcasts began at the end of April although the official launch of Walk TV, including the full programme offer with 15 services, began in June. Content included live coverage of the FIFA World Cup as well as services from leading broadcasters such as RAI, Sky, Mediaset, and La3. The content offer is expected to increase to 20 services by the end of the year and 40 services by 2008.

To support H3G in their rollout plans for extended and optimized DVB-H network coverage, CHIRplus_BC was selected as the sole radio-planning tool.

CHIRplus_BC is LS telcom's fully integrated radio engineering suite that reflects all aspects of modern and efficient network design by incorporating

- an ergonomic graphical user interface,
- a highly sophisticated geographic information system,
- and a powerful database

Having implemented Mobile TV specific requirements such as particular DVB-H protection ratios, 4K mode and different reception modes for handheld devices, LS telcom has once more defined the standard for network planning tools on the market.

Continuous proactive development processes guarantee LS telcom's role as a pioneer in its market that is at the forefront of technology.

LS telcom supported ITU-BDT Regional Network Planning Workshop for the Arab Region

The workshop held in Cairo, Egypt from 15-27 July 2006, was addressed to network planning experts and managers from telecom operators, policy makers and regulators from the Arab Region.

Network planning activities evolve with the proper evolution of the network, the services, the technologies, the market and the regulatory environment. These evolutions imply a wider set of options than in the past to implement a network. As a consequence, the importance of careful planning and analysis for alternatives have larger impact on the network capabilities today in order to assure the needed capacities, the associated



MULTIlink workshop by LS telcom

quality of service and the required investments.

Considering the different solutions/network architectures that exist and the continuing evolution of telecommunication networks, each Network Planning case has to be analysed and dealt with using a powerful state-of-the-art planning tool.

Practical case studies with the utilization of LS telcom's radio link planning system MULTIlink have been developed and presented during the workshop by directly involving the participants from more than 12 Arab Countries.

Integrated System for Broadcast Frequency Management to CSA and HACA

In joint projects, LS telcom and CTS International supplied integrated frequency management systems to the French broadcast regulator CSA as well as to the Moroccan broadcast operator HACA. The integrated systems each are consisting of the broadcast planning tool CHIRplus_BC and the spectrum ma-

agement solution Ellipse Spectrum.

Both of these projects were completed prior to the take over of the Spectrum Business unit of CTS International by LS telcom and can be considered as a first proof of matching the products of both suppliers.

LS telcom acquires Spectrum Management Business Unit of CTS International

LS telcom and CTS International have signed a contract to transfer CTS International's „Spectrum Business“ to LS telcom.

Both companies were already working hand in hand on several occasions in the area of frequency management, in particular related to providing solutions for Broadcasting applications.

The now agreed transfer of the Spectrum Business unit of CTS International to LS telcom includes a customer base of telecommunications regulatory authorities in about 20 countries. In addition, through this transaction, LS telcom acquires all rights of 'Ellipse Spectrum', the CTS spectrum management software solution with an excellent reputation in the area of frequency management.

This transaction enlarges LS telcom's customer basis running solutions for their countries' frequency spectrum management to more than 70 countries. Integrating CTS' Spectrum Business unit in our company group will enable LS tel-

com to even more efficiently address our specific customer's requirements while at the same time we will gain additional resources to address R&D for future radio technologies.

Philippe Catherine, Chairman and CEO of CTS International, stated: "We appreciate to cede our Spectrum Business Unit to LS telcom, the Market leader for spectrum management solutions. Their large development and customer services teams will bring additional value to the current customers of Ellipse Spectrum..."

Through this acquisition LS telcom strengthens its market leading position in the area of system solutions for regulatory authorities, reinforces its presence in the French speaking market and can count on additional manpower for product distribution.

The acquired entity will be run as a 100% LS telcom subsidiary under the name "LS telcom SAS" in France.

Training Center News

RRC06-Consequences

The training will give an overview of the most important issues and achievements of the Regional Radio Communication Conferences 2004 and 2006. Further topics of the training are the history of recommendations and agreements and an overview of the relevant digital services. Practical exercises using the LS telcom planning tool CHIRplus_BC, e.g. intended modifications of the Plan will also be part of the training. The training is completed by presenting RRC06 results and providing an outlook to the following transition period up to the final "switch off" of the analogue broadcast.

Mobile TV

The training gives an overview on the current status of Mobile-TV worldwide as well as an understanding of the different techniques for Mobile TV. Furthermore different systems like DVB-H, DMB, mediaflow etc. will be compared and the respective network concepts will be discussed. Beyond technical issues also economical, regulatory and media aspects will be addressed.

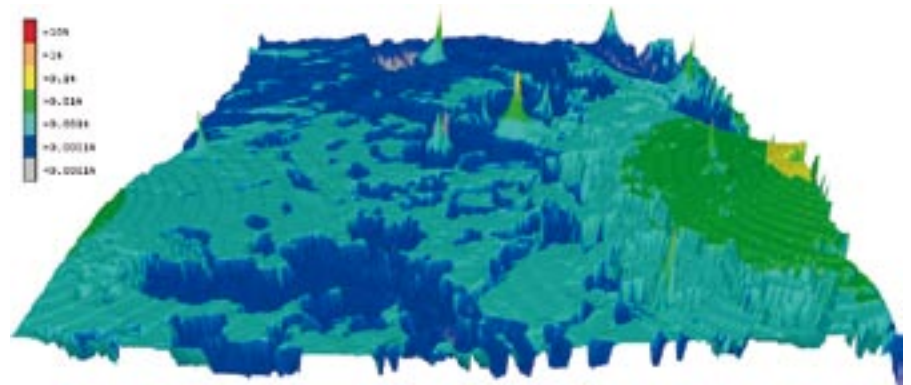
The Mobile TV training is suitable for operators and regulators as well as everyone interested in technical and economical aspects of Mobile TV.

Contact us for the corresponding training dates and further details!

Immission Analysis

Within the extensive research project miniWatt II of the Ministry of Education and Research in Germany, LS telcom has developed methods to analyse immissions of relevant terrestrial radio services. Based on the EU Council Recommendation (1999/519/EG) the induced current and the thermal effects are the two main impacts of immissions. Depending on the frequency range it is possible to determine the immissions of both effects for an arbitrary area for various terrestrial service. The new procedure allows interesting analyses e. g. comparison of immissions of different network structures.

LS telcom was responsible for the immission analysis working package,



where all 4 German mobile operators were involved. Furthermore LS telcom itself carried out the immission analyses in the broadcasting field.

LS telcom was already involved in the previous research project miniWatt I regarding the issue on alternative, exposure-optimized network structures.

Usergroup Meeting 2006

The 10th LS Usergroup Meeting was held from 3rd to 4th July 2006 in Lichtenau, Germany. About 50 participants joined this outstanding event and took the opportunity to exchange their experiences with other users of the LS software.

Each year, the LS Usergroup Meeting is a unique opportunity to learn about the activities of other LS users from around

the world and to discuss best practice in handling the LS telcom applications.

On the occasion of the 10th Meeting, new planning and propagation models as well as various other new developments were presented.

As every year, the LS Usergroup supplied valuable impulses concerning future product development.



LS Usergroup Meeting

Maintenance Agreement with LTA, Lesotho

The Lesotho Telecommunications Authority (LTA) acquired from Spectrocan (LS telcom Ltd. Canada) a comprehensive spectrum management and monitoring system consisting of spectrum management software, monitoring systems, and microwave links. This project was a first step major upgrade in national telecommunications facilities. The acceptance tests and the final commissioning already

took place. LTA and Spectrocan have now entered into a long term partnership



LTA delegation

by signing a maintenance contract that will provide LTA with regular software updates, individual problem resolution and helpdesk and emergency hotline services.

Visit us at our booth...

ITU Telecom World 2006

The latest innovations in ICT (Information and Communications Technologies) will be shown at ITU Telecom World 2006, taking place from **4 - 8 December 2006 at the AsiaWorld-Expo in Hong Kong.** Find additional information at www.itu.int/world2006 and do not hesitate to visit us at our **booth #9027, Hall 9.**

Spot on

Emettel, a French Broadcast Service Provider, has just joined the prestigious group of LS customers. Emmettel has purchased CHIRplus_BC for analogue and digital broadcast planning in France.

Antalis TV, a key broadcasting player in France, has recently purchased the LS telcom flagship tool CHIRplus_BC to further enhance their planning capabilities of digital broadcast networks.

Radio Nacional de España has implemented CHIRplus_BC for the planning of their mediumwave broadcast sites. Already available DRM planning functionality was an additional reason for adopting CHIRplus_BC.

CHIRplus_SAT was chosen by **Pakistan Space & Upper Space Research Commission** for the planning and coordination of satellite communication systems.

ART Senegal contracted Rohde & Schwarz to deliver an integrated spectrum management and monitoring system. In this project, LS telcom will supply the SPECTRA system as well as provide associated integration, training and on-site support services to ART.

TRC extends Maintenance and Support Contract

Telecommunications Regulatory Commission (TRC) of Sri Lanka, a long-term customer of LS telcom, has once more extended its maintenance and support contract with LS telcom. Under the new agreement, LS telcom will supply TRC with the latest updates of the renowned spectrum management system SPECTRA_plus, provide on-site support and adapt the existing system to the changing requirements of TRC.

Furthermore, the extension contract also includes an upgrade of the existing system with the appropriate software modules for planning and coordination of digital television and wireless broadband communications networks.

By concluding this latest contract with LS telcom, TRC will be ready to face the increasing requirements of spectrum management in Sri Lanka.



Impressum

Publisher

LS telcom AG
Im Gewerbegebiet 31 - 33
D- 77839 Lichtenau - Germany

Tel. + 49 (0) 7227 9535 600
Fax + 49 (0) 7227 9535 605

E-mail: info@LStelcom.com
Internet: www.LStelcom.com

Editor: Dipl.-Ing. Roland Götz
Layout: Beate Zehe

Copyright

© 2006 in all texts and photos:
LS telcom AG if not stated differently

LS telcom