

## Indonesian Spectrum Management System officially inaugurated and put into operation



Demonstration of SIMF during the inauguration event

„SIMF“, the Indonesian spectrum management system, provided by LS telcom has officially been inaugurated and put into operation. More than 100 persons took part in the official inaugu-

ration ceremony. In the presence of the general director of POSTEL Dr. Ir. Basuki Yusuf Iskandar and the director of the frequency management section Ir. Tulus Rahardjo, the first invoice and license was generated by the system. In their speeches Dr. Ir. Basuki Yusuf Iskandar and Ir. Tulus Rahardjo emphasized the importance of the new system. It is an important milestone in frequency management for the Republic of Indonesia. For a smooth start of the operation more than 30000 licenses had to be migrated from the previous system to SIMF.

SIMF consists of the SPECTRAplus core system for administrative and billing purposes. The service dependent CHIRplus and SPECTRA modules are included for graphical visualization, technical analysis (planning, compatibility and frequency assignment) and co-ordination issues (ITU notification and co-ordination with neighbouring countries). After the start of this project end of 2004 and successful implementation of the different milestones, the project was a complete success. On site support is now provided by our local partner with several engineers certified by LS telcom.

### Subjects of this issue

- Inauguration of Indonesian Spectrum Management System SIMF
- New ITU-compatible Notification Module
- Contour Based Border Calculation in CHIRplus\_LM
- Regional Workshop on DTTB
- LS telcom at ITU Partnership Pavilion on WSIS
- New Services for Spectrum Managers
- Training Center News
- News in Brief
- 10<sup>th</sup> annual Usergroup conference
- LS Summit 2006

### Dear Readers

With this issue of LS telcom's customer news magazine, we are happy to invite our customers, partners and friends to the 11<sup>th</sup> LS Summit – our Annual Seminar Day - taking place at our Headquarters in Lichtenau/Baden at the 5<sup>th</sup> of July.

The dictionary first defines "Summit" as the highest point or part. But it is the second explanation, which truly defines the ongoing objective of this seminar: to reach the highest point of attainment or aspiration. And in our opinion, "Summit" not only symbolizes the highest point of our collective ambition but the highest level of experts we had the honour of hosting.

The ongoing goal of our LS Summit is to bring the best minds together, to learn from one another and in doing so, strengthen our respective positions, and collectively our ability to empower the future of telecommunications.

Within a conference accompanying exhibition you can fully inform yourself about the software solutions and services LS telcom provides. Here our system solutions will be presented live and our experts are at your disposal to answer questions about the LS telcom product range.

Seize the opportunity to exchange experiences with professionals of the line of business during the LS Summit 2006 and get in contact with interesting people.

We would be pleased to welcome you as our guest at the 11<sup>th</sup> LS Summit!



Roland Götz,  
Member of the Board



## New ITU-compatible Notification Module

Modern Spectrum Management Systems have to support various administrative and technical functions ranging from billing of licenses to detailed technical analysis of radio networks for frequency assignment and coordination.

Notification of new or modified frequency assignments which may cause interference to radio networks in foreign countries is an essential step of the international coordination process. For this reason, the notification procedure is an important activity of every regulator in the field of spectrum management.

The ITU maintains the BRIFIC and SRS databases of international operational assignments and frequency plans for terrestrial and space radio services based on the incoming notifications from the administrations.

The new LS telcom ITU-compatible notification module has been designed as integrated part of the SPECTRA system for all terrestrial and space notice types accessing the ITU databases. National notification data are stored in a central, multi-user notification database providing various import/export interfaces to other modules of the system. These interfaces can be used to send existing

station data from the license database to the notification database for final editing and creation of the notifications without manual re-entry of data. On the other hand, the query functions on ITU BRIFIC



and/or SRS databases directly integrated into SPECTRAplan, SPECTRAview, SPECTRAemc, SPECTRAMpt and MONITORplus are used to access and evaluate the international data depending on the specific task of the module.

Editors and electronic ITU data exchange formats for the new digital requirements (DS1, DS2, DT1, DT2, DA1, administrative declarations) of broadcast service are available as further extension of the new LS telcom notification module.

## LS telcom supported "Regional Asia-Pacific Workshop on Digital Terrestrial TV Broadcasting Roadmap towards DTTB"

Implementation of Digital Terrestrial Television Services is about to commence in the Asia-Pacific (AP) region and AP broadcasters are considering the possible ways for a safe and smooth transition from Analogue to Digital Terrestrial Television Broadcasting (DTTB). This successful migration is influenced by several key factors, including media law, regulatory and frequency management issues.



Participants of the Regional Workshop on Digital Broadcast in Jakarta

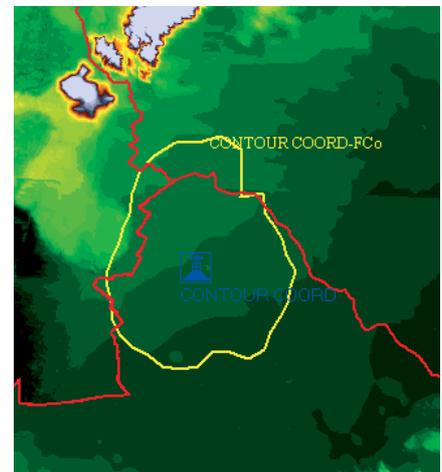
This regional workshop, a joint project organized by the Asia-Pacific Institute for Broadcasting Development (AIBD) and ITU, and hosted by the Ministry of Communication and Information, Indonesia, should assist to build a clear understanding of the technical capabilities and restrictions of DTTB technology.

Part one of the four days workshop was focusing in provision of information on available technologies, propagation issues, frequency planning and coordination, antenna design and DTTB introduction examples from European countries. The second part was focusing on the status of DTTB in Asian countries. The participating countries Brunei, Cambodia, China, India, Indonesia and Thailand gave comprehensive country reports.

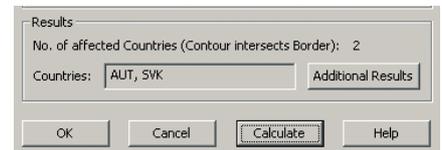
LS telcom supported this series of regional training workshops on DTTB for the last 4 years, with events in Brunei (2002), Iran (2003), Vietnam (2004) and Indonesia (2005).

## Contour Based Border Coordination in CHIRplus\_LM

The coordination part of CHIRplus\_LM used to be based mainly on the so-called Harmonized Calculation Method (HCM) as defined in the HCM Agreement (formerly known as Berlin- or Vienna Agreement). HCM makes it easy to determine whether frequencies have to be coordinated or not and determines in a fast and reliable way the countries to be taken into account during the coordination procedure. However, HCM requires a special kind of topographic map data and borderline vectors. This kind of data is sometimes difficult to receive, especially for administrations of countries not having signed the agreement.



CHIRplus\_LM now offers an additional contour based border algorithm which uses the standard topographic map data and border vectors in LS format. This method is based on a field strength contour calculation using the permissible field strength value as defined in coordination agreements as contour value. In order to determine frequencies which have to be coordinated, CHIRplus\_LM evaluates whether the predicted contour intersects the border of neighbouring countries.



The user can select from a list of available propagation models (e.g. ITU R P. 1546) to calculate the contour.



## Partnership agreement presented at the ITU's Partnership Pavilion at WSIS

ITU and LS telcom presented their partnership project "Planning Tool for Radio Access Planning & Core Network Planning" at the ITU Partnership Pavilion during the World Summit on the Information Society (WSIS) in Tunis.



H. Touré, Director of BDT, ITU and Roland Götz, Member of the Board, LS telcom, presenting the partnership agreement

Within the framework of multi-stakeholder partnerships to support the WSIS Plan of Action and one of the results of WTDC-02, Programme 2, to „...recommend appropriate planning tools for telecommunication network planning“, LS telcom's MULTIlink will assist network planning experts and management operators, regulators and administrations of developing countries to use advanced network planning tools for demonstration, training and trials.

ITU has organized this Partnership Pavilion to present and exhibit WSIS partners who are working to bring the benefits of information and communication technologies to all. The pavilion was sited near the venue of the summit's plenary sessions.

## New Services for Spectrum Managers

Spectrum Management comprises an extremely wide field of disciplines and skills, ranging from licensing issues towards spectrum auctioning processes, from satellite coordination to the re-planning of large frequency bands, as e.g. currently within the scope of the RRC06. LS telcom is supporting Regulators and Operators since more than fourteen years. During this time our experts have come across and solved a large variety of different questions. Processes have been analyzed and optimized, workflows have been implemented. The same expertise that allowed us to develop and optimize the most competitive spectrum management software solution is also available to our customers as consulting package. We help where a specific resource of expertise is missing; we provide training to experienced staff on particular technology or task related topics; and we also transfer knowledge to newcomers in the spectrum management business. All this with the aim to assure the highest level of efficiency and productivity for our customer's in their daily work. LS telcom takes over complete tasks temporarily or permanently, dependent on our clients' needs.

Here are some examples of our work that were also performed in the recent past. Feel free to ask for other subjects.

### Fee schedule definition and optimization

Introduction of new fee schedules can be quite mystic. Being one of the most important sources of income for frequency managing administrations, a fee schedule has to correspond to the demands of national resource policy and the needs of

the customers. Also it should be simple and understandable for everyone. Once defined and set in force, it suddenly may turn out to be a big pain for some operators, while other spectrum users are very delighted with it.

To avoid such problems from the beginning, LS telcom has developed a modular package of solutions consisting of

- Need analysis: Local policy, infrastructure guidelines, growth check, and telecommunication law inspection. This package creates the framework of a national fee schedule.
- Fee database set up: A fee database is set up, allowing to analyse fee schedules within shortest possible time in terms of efficiency, individual and collective charges.
- Fee schedule definition: Based on the need analysis and experience from other companies' implementations the fee schedule is created. Together with the customer, LS telcom experts then can tune the schedule using the fee database.

### Coordination Service

For a specific service LS telcom could take over the full task of coordination e.g. for a broadcasting station. All national and international compatibilities are checked, possible clashes indicated and removed. Notification forms are filled and submitted. The process is being controlled by LS telcom, always updating the customer about the project status.

## Training Center News

### Introduction to LS telcom Spectrum Management Tool Family

(July 24 - 28, 2006)

The training gives an introduction to the LS telcom tool family used by many Regulatory Authorities around the world. In detailed exercises the handling and data entry for the central database will be shown to the participants. How to set up a frequency plan in accordance with the ITU regulations will be addressed in the second part of this training. Interaction between administrative and technical modules, i.e. data exchange and detailed evaluation, will be presented for several services.

Participants will also be trained on how to make use of monitoring data, including preparation of measurement data, and its comparison with the central license database.



### Introduction to DVB-H

(May 15, 2006)

DVB-Handheld will allow a wide range of new broadband multi-media and attractive mobile-broadcast services. This workshop, describing the features and principles of DVB-H, provides an overview of the DVB-H system, the different variants as well as the planning consequences.

The course is of interest to mobile operators, broadcasters and regulatory bodies

## VT Communication selects CHIRplus\_BC

VT Communications selected LS telcom's broadcast planning and coordination software CHIRplus\_BC for the optimization of their existing long and medium wave sites worldwide as well as for the planning of new sites. VT Communications (formerly Merlin Communications International Ltd) was established in 1997 through the privatization of BBC World Service's transmission network and reached agreement to continue distributing and transmitting BBC World Service radio programming for a further five years to 2012.

## Don't miss it...

### 11<sup>th</sup> LS Summit at 5<sup>th</sup> July 2006 in Lichtenau

On 5<sup>th</sup> July 2006 the 11<sup>th</sup> LS Summit will take place at LS telcom's headoffice in Lichtenau.

**LS  
summit** 2006  
11<sup>th</sup> Annual Seminar Day

Also in this year top-class speakers will pick up the latest topics from the fields of broadcasting, mobile communication, telecommunication and spectrum management and will pass on the recent information to you in their lectures.

More detailed information regarding the seminar program can be found on our homepage [www.LStelcom.com](http://www.LStelcom.com) within the next days.

## Spot on

### Extension of Spectrum Management System for ANACOM

ANACOM, the Regulatory Telecom Body of Portugal, extended its comprehensive spectrum management system from LS telcom by adding the planning module for 3G/UMTS services.

### Digital Broadcast Extension for ILR

The Institut Luxembourgeois de Régulation, a long-term customer of LS telcom, has lately upgraded its broadcast planning and coordination system for the upcoming RRC Conference with LS telcom's extension modules for T-DAB and DVB-T.

## In the Spirit of Sharing...

### 10<sup>th</sup> Annual Usergroup Conference

**USERgroup**

Though a very old proverb, "in the Spirit of Sharing" still finds its place within modern times.

On 3<sup>rd</sup>/4<sup>th</sup> July, two days prior to this year's LS Summit, the LS telcom Usergroup will

held its annual conference in Lichtenau for the 10<sup>th</sup> time already.

The Usergroup was founded 1997 by users of LS telcom applications. The Usergroup is an independent group and its intention is to exchange experiences and new ideas, to discuss network planning issues as well as to define requirements for new software releases with respect to the latest developments on the market.

LS telcom wishes the Usergroup all the best for their jubilee conference 2006!

### ...the same is true for ENCB

The Estonian Regulator ENCB has been using CHIRplus\_BC since 2000. In preparation of the RRC Conference, ENCB decided to add the DVB-T module to their existing system configuration.

### ... and FICORA

The Finnish Communications Regulatory Authority also expanded its broadcast planning and coordination system with an upgrade for digital television services.

### Prolongation of frame contract with E-Plus

German mobile network operator E-Plus prolonged microwave link planning frame contract with LS telcom. The prolongation of the contract reflects the long-standing, excellent cooperation in the field of backbone planning between E-Plus and LS telcom.

## Impressum

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**LS telcom**

## Visit us at our booth...

### CommunicAsia

Asia's most relevant, comprehensive and important information and communications technology event will be held from **20 - 23 June 2006 at the Singapore-Expo.**

Find further information on [www.communicasia.com](http://www.communicasia.com).

Visit **LS telcom at booth #4L3-12.**

### IBC

The IBC Exhibition will take place at the **Amsterdam RAI from 8 - 12 September 2006.** With 550 companies already signed up to exhibit, it will showcase the latest technology and foremost business ideas in broadcasting and media.

For further information visit [www.ibc.org](http://www.ibc.org).

Visit **LS telcom at stand number 1.533.**

### Design Services for Lithuanian Digital Mobile Radio Communication System

The Ministry of Interior (MoI) of Lithuania contracted the consortium lead by LS telcom to carry out the design services of the digital mobile radio communication system of the MoI in all territory of the country.

### CHIRplus\_BC to be implemented in Belgium

The Ministère de la Communauté Française of Belgium recently awarded LS telcom in an international tender process the contract to supply a turnkey planning and coordination system for analogue and digital broadcast services.

### ... and extended in China

The Chinese Broadcast Regulator SARFT purchased an additional license of CHIRplus\_BC for analogue and digital broadcast planning and coordination.