



CeDaR NEWS

ALLROUND Mobile Solutions volume 4 > issue 1 > Febr 2005

Welcome

Dear All,

Once again the mobile industry turns its head – now for the last time – to Cannes. The 3GSM World Congress is the place to be in February if you would like to see what's new in the business. Naturally, ALLROUND is going to be exhibiting so please stop by and see us. At our stand, our product experts will be on hand and delighted to answer any questions you may have. If you would like to schedule a meeting with us please contact *András Liebentritt* on +36 1 206 6280 or by email: liebentritta@allround.net.

As for this edition of CeDaR News, it is as information-packed as ever with 3 inserts: **TAP Management**, **CeDaR for Testing and CDRs Under Control**. You will also find a possible usage scenario for our TAP Solution product, together with an interview with our Managing Director about his views on current issues of the mobile industry.

We hope you'll find the first edition of CeDaR News for 2005 interesting and informative. We look forward to meeting you in Cannes! ♦

ALLROUND to host TADIG plenary #59

We are proud to announce that ALLROUND will host the TADIG meeting #59 in Budapest, Hungary between 10-12 May. Following the event ALLROUND will independently host a 1-day Workshop specific to its TAP and AllRoamer products. If you are interested in participating in this Workshop (whether or not you are attending the TADIG meeting) please register with us.



ALLROUND Mobile Solutions] TAP Solution

ALLROUND's TAP Solution application is part of the company's roaming product-line. It builds on those functions of the billing system that work fine and replaces only those that need amendment. Its modular architecture seamlessly fits into the existing environment. A clear

advantage of the TAP Solution is that it enhances the flexibility of the system, without affecting complexity. The TAP solution helps manage everyday roaming functions in a cost-effective way. >> Please turn to page 3 for more details.



Visit US at



ALLROUND will be exhibiting at Stand J14-15, the Hungarian National Stand. Our applications will be displayed in action and our experts will be ready to discuss whatever needs and questions you may have regarding CDR/TAP handling, Testing, Roaming Management and Revenue Assurance. Make sure you pay us a visit! ♦

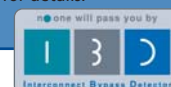
New for the 3GSM World Congress – Product & Service announcements in Cannes

ALLROUND Management Console
ALLROUND will launch a new product called ALLROUND Management Console that is a Graphical User Interface supporting the full management and operation of our TAP Solutions.

Bypass 'Klinik'

Are you being bypassed? Measure your revenue loss caused by bypass fraud for FREE!!!

>> See page 4 for details.



ALLROUND's 10 years in mobile telecoms – an anniversary interview with László Kiss, Managing Director of ALLROUND

>> Please turn to page 2 to see what ALLROUND's Managing Director has to say on the the mobile industry's present and future.

ALLROUND's 10 years in mobile telecoms – an anniversary interview with László Kiss, Managing Director of ALLROUND

ALLROUND was founded in 1991. The company began by providing high quality IT services to clients in a variety of industries. It was not until 1995 that ALLROUND's attention shifted towards mobile telecoms. That year, the company's Fraud Detection Systems were released, followed by various other solutions in the CDR processing field. During the past 10 years the company's business has expanded into Europe, North and South America and most recently to the Middle East and Africa making ALLROUND now a global provider of CDR processing solutions and Operational Support Systems.

Q: In retrospect, how do you see 2004 in mobile telecoms? Is the mobile industry finally back on track?

A: I guess all of our readers would agree that in 2004 we faced tough and interesting challenges though not without seeing a good deal of success too. I've seen a lot of positive signs this year: the success story of GSM continues, with the number of subscribers exceeding 1 billion. 3G services have arrived and continue to evolve. I think these developments explain why most of us in the industry have high hopes that mobile telecoms will stay on their emerging course. On the other hand, although the importance of GPRS and EDGE has increased, multimedia and 3G have not really changed subscribers' usage patterns – yet. Consequently, competition is stiff

On the road to 3G

- ▶▶ CeDaR, ALLROUND's flagship application (please see the CeDaR insert for more details on the product) is fully prepared for 3G as far as CDR formats are concerned. Due to its format flexible nature, CeDaR easily handles new formats – in this case new type of CDRs incorporating 3G services.
- ▶▶ CeDaR – as a test file generator – will also be useful when it comes to testing. Proper test files will be highly valued, as the demand for testing the billing system before a new 3G service is launched will increase. CeDaR will help operators broaden their knowledge of 3G services through working with these generated test files.
- ▶▶ Mobile operators will also have to be aware of new types of fraud activities due to the new services and new type of infrastructure, which Fraud systems must properly handle.

in the traditional areas such as rate plans, equipment offers and the importance of complementary processes – international roaming, rapid service development, testing and revenue management, to name a few – has significantly increased. Currently they seem to be the factors where there is differentiation.

Q: How did ALLROUND perform last year?

A: We've had an exceptionally successful year! We've ventured into several new markets, for example Germany, Jordan, Egypt and Botswana. We've successfully maintained long-term and mutually beneficial relationships with our existing clients. Both our mature and our new products have proved that they provide mobile operators with real value.

Q: What is to be expected of 2005 and in the mid-term future?

A: I expect the industry to keep its momentum, reaching higher subscriber numbers and to see increased revenue with the rapid evolution of 3G services. Meanwhile, mobile operators need to examine how they currently operate and take the steps necessary to carry them with continued success into the future. Back in the days of fixed-line telephony, we used to talk about POTS as Plain Old Telephony Service and now we are approaching the POMS, or Plain Old Mobile Service stage, when business success must not be built just on POMS anymore. Everyone should realize that in the industry, besides the current successful business models, new ones have to be developed. As the mobile phone turns from a simple tool used for voice communication into a multimedia device, the abundance of services offered and the information available will be the key factors in the future. No one has found the killer application yet; therefore operators will continue their quest. The efficiency and speed of introducing new services will have significant impact on the whole revenue and churn rate.

Q: Since ALLROUND's core competency lies in CDR processing, what challenges do you see in this area?

A: With subscriber numbers increasing and new services appearing on the market, it's quite obvious that the number of CDRs and their types and complexity are growing exponentially, hence more and more systems and parties will depend on getting information from CDRs for a variety of reasons. Even if the ratio of pre-paid subscribers is relatively high, their CDRs will still have to be processed too, for example for interconnect and marketing purposes.

Furthermore, the new players in the value chain do not have telco background. The ways in which a content provider, a cinema ticket sales office or a parking fee collection company work, are shockingly different. But you have to interface them in the business model and also deep at the technical level. This extensive definition of interconnection will be really challenging. Mobile operators have to bear in mind that these new types of revenue sources will be of key importance for future success.

Q: What in your opinion will be the most important issues for your clients in 2005?

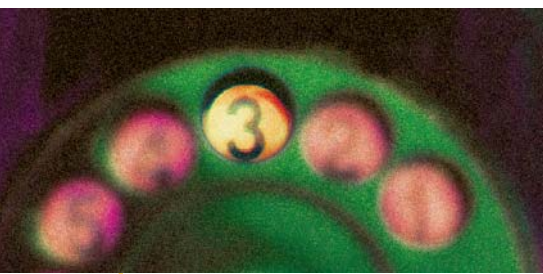
A: I think the greatest challenge of them all is how operators can use their existing systems in the world of shifting paradigms. Legacy billing systems have to be prepared for handling GPRS records and rating content, while old TAP management systems need to meet the demands of reporting for marketing and re-pricing, for example. All that has to be done in such a way, that the quality of service remains at least the same, with new additions smoothly taking their place in the system, while not increasing their overall cost level.

Q: What will ALLROUND's role be in this process?

A: Our product portfolio offers mobile operators applications for CDR Handling and Analysis, TAP Conversion, Roaming Management, Testing, Revenue Management, and Fraud Detection. Supporting these complementary processes is getting to be more and more important and can provide significant competitive advantages. Going back to the paradigm shift concept, in our view, testing and validation will be two key areas in the future. ALLROUND has a unique and well-established product for these problems called CeDaR that has proved its value with several mobile operators worldwide. The bottom line is that we enable operators to make necessary changes to their existing systems smoothly and effectively, gaining a competitive edge over the others.

Q: Do you have any final thoughts for the readers of CeDaR News?

A: I would like to thank all our readers for their positive feedback on our newsletter and hope that they will enjoy reading CeDaR News in the future as well. I would also like to invite them to visit us personally and share their comments with us in Cannes at the 3GSM World Congress, in London at Billing Systems and at the GSMA TADIG meeting hosted by ALLROUND in Budapest in May. I wish all our present and future clients and partners a very successful 2005! ♦



[ALLROUND Mobile Solutions] TAP Solution

Variation on a theme

An implemented application at an ALLROUND client

ALLROUND recently developed its complete roaming product line for addressing the need of mobile operators to make use of the key revenue streams international roaming could provide them with. For a detailed description on the flexibility and the functionalities this product line provides please refer to the **TAP Management insert**. In this article we focus on a system architecture put together to fulfill a given customer need.

There is an increasing argument for applying ALLROUND's TAP Solution. Thanks to its **modular architecture** the system can fit into the mobile operator's existing environment providing exactly the requested functionality. The keyword is

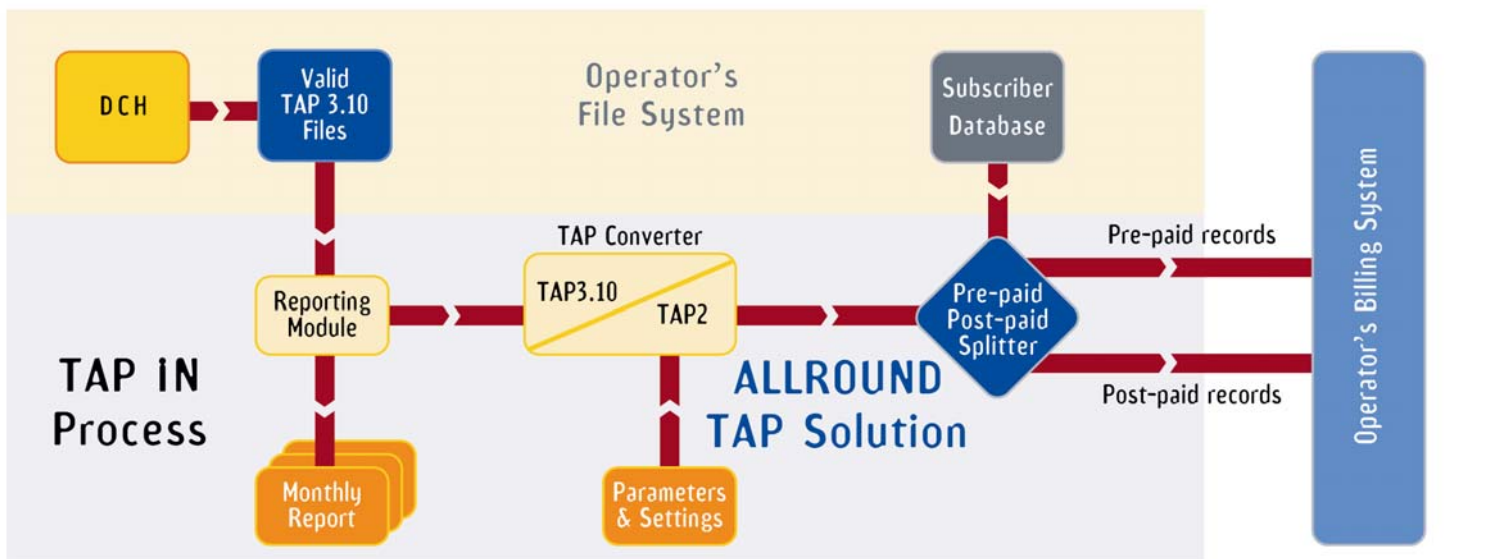
'exactly': The application provides nothing more – nothing less.

A clear advantage of ALLROUND's solution is that there is **no need to change legacy billing systems**. Changing a billing system usually takes longer – operators can save valuable time using ALLROUND's solution. Furthermore, the appli-

cation gives operators **greater control over their roaming operations** allowing them to offer competitive packages for their subscribers.

ALLROUND has implemented solutions worldwide in territories including Europe, North and South America, the Middle East and Africa.

written by Attila Nagy



TAP IN direction

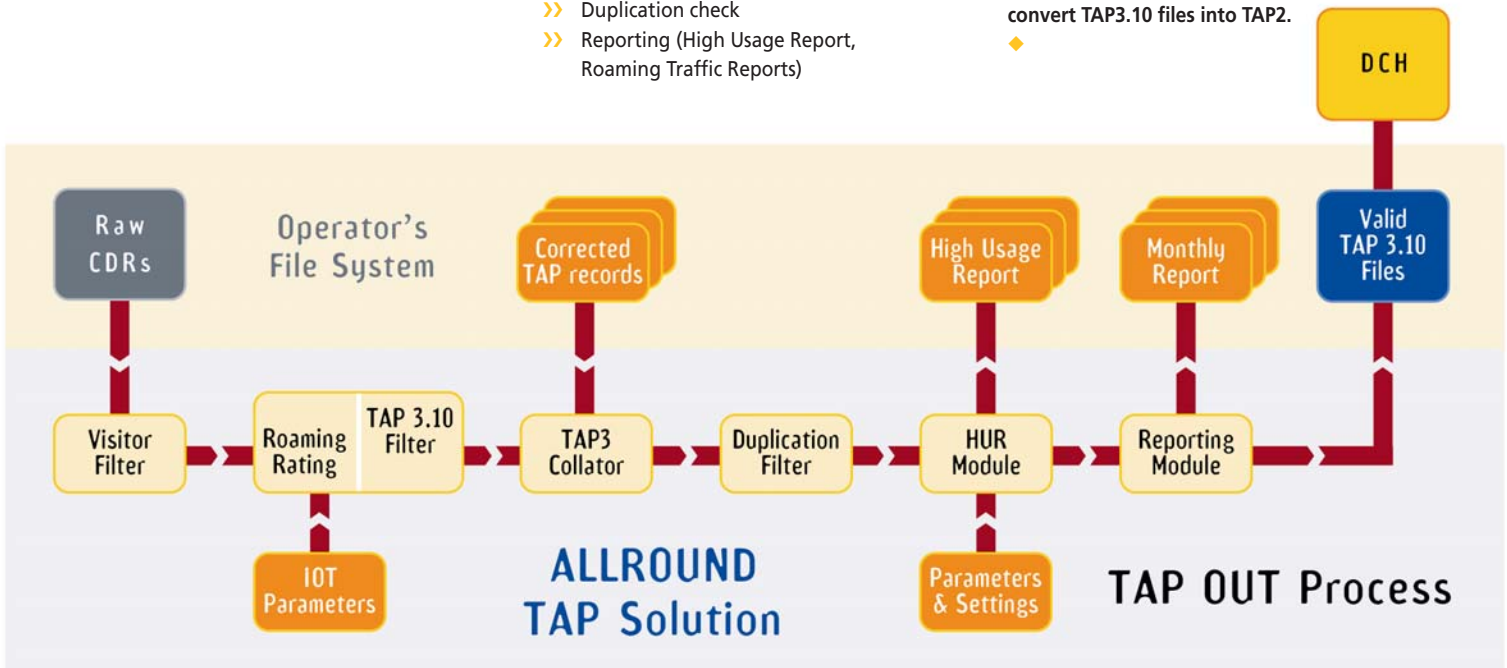
- >> Processing TAP IN files
- >> Reporting (Roaming Traffic Reports)
- >> Format conversion (TAP3.10 to TAP2)
- >> Pre-paid/Post-paid selection (based on IMSI)

TAP OUT direction

- >> Processing raw CDRs
- >> Visitor filtering
- >> Rating and format converting
- >> Record collation and grouping
- >> Duplication check
- >> Reporting (High Usage Report, Roaming Traffic Reports)

The Solution

The system architecture shows the tailor-made fulfillment of a customer requirement. The task is to create TAP3.10 files from raw CDRs in TAP OUT direction, while in the TAP IN direction convert TAP3.10 files into TAP2.



About us

- » ALLROUND is an ISO 9001:2000 certified company specialized in software development and consulting.
- » The company was established in 1991, it is a **Microsoft Certified Solution Provider** since 1995, **Oracle Alliance Partner** since 1997 and **Oracle Certified Solution Partner** since 1999.
- » Member of the **Sun iForce (sm) Partner Program** since 2001.
- » The company joined **HP's Developer & Solution Partner Program** in 2004
- » ALLROUND is an **Associate Member of the GSM Association** since April, 2002, listed under the categories **Security Systems Supplier** and **GSMA Standards Supporter**. ALLROUND is represented in the following working groups of the GSMA: BARG, TADIG, the File Specification Subgroup, and TTS. ♦



CDR formats

Supported formats by CeDaR Interactive and CeDaR Utilities at present

» As the CeDaR product line is an extremely format flexible range of interactive software products, handling both ASN.1, XML and sequential formats, it's of no surprise it supports various MSC, Billing System, GPRS and other vendor specific formats.

MSC formats:

Alcatel 5.2 > **NEW**
Ericsson CME20 R7, R8 (Rev.G),
R8 XML (Rev.F), R8 PCS (Rev.E),
R9.1 PCS (Rev.B),
R9.1 (Rev.C),
R10, R10 PCS
R11

Nokia DX200 M10 BCD/HEX
Nortel GSM 15
Nortel GSM 16
Siemens CS1.0 MSE
Siemens D900 SR8.0

GPRS formats:

Ericsson GSN 2.0, 2.1, 3.0
GPRS UTX, UTX 2
Nokia GPRS CG 1.1, 2.0
Nortel GPRS 3.2, 3.6

Billing System formats:

BSCS 6.0 UDR > **NEW**
Jupiter CCCF, CCCL, CTRL Ver 2.2 Rev 0.3
Rating DUMP2

Multimedia Messaging formats:

Multimedia Messaging Service 4.0.0
Multimedia Messaging Service 5.0.0

TDMA formats:

Ericsson AS147, AS160

Standard formats:

GSM 12.05 (v7.0.1)
GSM 12.15 (v7.6.0)

Roaming data exchange formats:

TAP1 (TD.01 3.12.1)
TAP2+ (TD.17 3.13.0)
TAP3
3.2 (TD.57 3.6.0), (TD.57 3.6.2),
3.3 (TD.57 3.7.1),
3.4 (TD.57 3.8.1), (TD.57 3.8.2),
3.9 (TD.57 3.9.0),
3.10 (TD.57 3.10.1)

RAP 1.1 (TD.32 3.5.1)
for TAP3.2 (TD.57 3.6.2),
for TAP3.3 (TD.57 3.7.1),
for TAP3.4 (TD.57 3.8.2),
for TAP3.9 (TD.57 3.9.0)

RAP 1.2 (TD.32 3.6.2)
for TAP3.9 (TD.57 3.9.0),
for TAP3.10 (TD.57 3.10.1)

CIBER 2

Near Real Time Record Data Exchange (NRTRDE) 3.0.0, 3.1.0

Other formats:

CMG SMSC 3.5, 4.0, 4.6
MPC 3.0
MNET (Cisco)
Pacific Ocean (Location Based Services) 2.0 PA8
Nokia Operator Wireless LAN 2
Textpass SMS router ♦

Bypass 'Klinik'



Because it is cheap, easy to find, and easy to implement the technology required for **GSM Bypass** is rapidly proliferating the market. In fact, some of your best "business" subscribers may be depriving your firm of millions in revenues by routing international calls over Internet lines.

If you want to know your existing systems are identifying these thieves participate in our **FREE Interconnect Bypass Detection (IBD) Klinik**.

How to take part? It is simple:

- » Burn at least 3 days of voice records (CDRs) onto a CD and send it to us via express mail.*
- » Using our IBD application we will provide you with an evaluation of potential bypass cases.
- » If you are attending the 3GSM World Congress in CANNES (February 14-17) we can meet at the Allround booth for a live demonstration of IBD – using your data! If you will not be visiting Cannes we can perform the demonstration over the Internet.

To sign-up for the Allround Bypass Klinik go to the ALLROUND website: www.allround.net

* If you require us to sign a Non-Disclosure Agreement we are prepared to do so.

ALLROUND's **Interconnect Bypass Detector (IBD)** is an application designed to **identify Interconnect and GSM Bypass Fraud**. IBD does not replace your Fraud Management System (FMS) but rather complements it in order to combat these new types of fraud.

For more information on Fraud and IBD, please contact us at bypass@allround.net. Remember that you can download a free trial of IBD from our website: www.allround.net.

Contact us

- » For more information on commercial issues regarding ALLROUND Mobile Solutions, please contact us at sales@allround.net
- » For information on our products please contact us at solutions@allround.net



ALLROUND
PUTS YOU IN CONTROL

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