

TAP

At a Glance

TAP Management > Executive Summary

With worldwide roaming revenues expected to reach US\$50 billion in 2004 there is a growing need for mobile operators to have the skills and technology to manage this critical part of their business more efficiently. Dependency on legacy billing systems and a diminishing number of data clearinghouses will prove to be problematic and costly as the demand and complexity of the roaming business grows. As latest trends indicate, competition among mobile operators is shifting from local services to international roaming. Operators have to be able to offer reliable and inexpensive services at the same level internationally as on their own home network.

From a **business point of view**, in order to be prepared for this roaming challenge, mobile operators will have to **take the following key factors into consideration**:

- » Rapidly increasing volume of roaming revenues
- » Growing demand for pre-paid and GPRS roaming
- » New services have to be introduced quickly to satisfy customers
- » Competition getting stronger
- » Offering subscribers discounts and transparent packages for roaming: Re-pricing will be crucial

Also, there are **upcoming changes from the technical side** that operators will have to address:

- » The GSMA has reduced the permitted number of partial GPRS records per file from 6 to 2
- » TAP3.11 will arrive next May
- » A new solution has to be implemented soon for handling High Usage Reports (HUR)

What are the likely consequences for you?

Tick any problems in the list below that relate to your situation and count up the total.

- Inability to introduce new services and discounted tariffs
- Competitive disadvantage
- Revenue loss

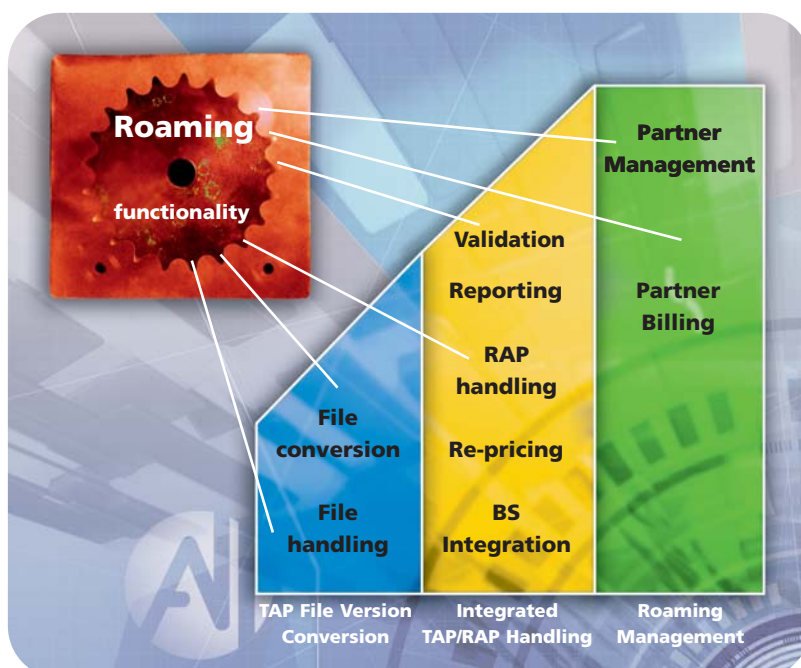
- Sharp increase in conversion costs
- Higher level of dependency on data clearinghouses
- Less control over the roaming process
- Insufficient reporting
- Roaming fraud
- Need for re-pricing

Is your total greater than zero? If yes, **what options do you have?**

1. Do nothing. Continue using data clearinghouse services for file conversion. No investment is needed but conversion costs are expected to increase and you can count on paying significant on-going fees to the DCH. You will not be able to introduce new services.

2. Invest continuously. Upgrade your billing system to the current TAP3 version. This approach takes time and requires a significant investment. In the end you will have a reliable in-house solution for addressing roaming tasks until the new TAP format appears on the market...And what about your pre-paid customers?

3. Bridge the gap. Introduce a solution in-between the billing system and the DCH. This can either be a simple TAP file converter or a more sophisticated integrated TAP handling application with a complete roaming management system at the high end of the spectrum.



Without wasting too many words on the "Do nothing" and "Invest continuously" approaches, let's consider how to measure the gap that needs to be bridged.

Firstly, let's see what the key functions of TAP management are:

- File conversion
- File handling
- Validation
- Reporting
- RAP handling
- HUR reporting
- Re-pricing
- Billing system integration
- Partner management
- Partner billing

Mark those functions that are not working properly in your system or can be improved.

Bear in mind that you should only change your system if you are clearly not satisfied with a specific function. If something works fine and ensures a winning position against the business and technical challenges listed earlier: **Do nothing!**

Based on the key functions of TAP management **three distinct stages** can be identified for **bridging the gap**:

- >> 1. TAP file version conversion
- >> 2. Integrated TAP handling
- >> 3. End-to-end roaming management

TAP file version conversion: automatic conversion between your current and the latest TAP version, running in the background and providing the standard interface to roaming partners.

Integrated TAP/RAP handling: creating valid TAP3.10 files from all kinds of CDR sources; processing incoming TAP files, matching and linking them to the billing system; controlling roaming traffic (reports & statistics)

Roaming management: managing the entire TAP/RAP workflow including roaming rating and re-pricing while supporting financial settlement, wholesale billing and inter-standard roaming; handling the complete Reject & Return process and providing

contract & partner management services; preventing roaming fraud activity

What are **the factors** that have to be **taken into consideration before purchasing** a new solution?

- The relevant stage in your situation
- IT environment
- Price
- Billing system integration

Solutions worthy of consideration are those that match your requirements exactly and integrate well into your current systems. They should fulfill nothing more and nothing less than your needs. It is not a sound investment to purchase parts of a bigger system with functionality that you will have no need for.

Finding the matching application to bridge the gap you can achieve competitive advantage, more control over the roaming process with the necessary investment.

How to bridge the gap? Here's what ALLROUND offers

Based on valuable customer feedback on the latest roaming trends and covering all three stages listed above, ALLROUND has developed three roaming-related products. They are ideal solutions for a given stage: cost effective and using optimal resources. The upgrade path between products is seamless and their functionalities can be optionally extended. These solutions integrate easily with existing billing systems.

TAP Converter – "Be always TAP-to-date"

- >> *If your roaming system works fine but it is unable to address all roaming issues*
- >> *If you would like to cut data clearinghouse costs on TAP file conversion*
- >> *If you want to stay with your existing billing system and quickly introduce new services e.g. CAMEL, pre-paid and GPRS roaming*

This is a billing system independent, ready-to-run application for TAP file conversion tasks. ALLROUND's solution uses XML parameter files for setting conversion parameters. It is a multi-platform solution that runs on every major computer platform: Unix, Linux and Windows.

TAP Solution

ALLROUND's TAP Solution 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.

AllRoamer – Roaming under control

AllRoamer is an application suite that provides a complete and integrated solution for all roaming business needs, including inter-operator roaming, contract and partner management, file formatting and transmission, call rating and re-

pricing, testing, validation, and a range of other services. Although it's a turnkey system designed specifically to meet the complete roaming needs of mobile operators, AllRoamer can be integrated with financial, billing, CRM and data warehouse systems.

We hope that you've found our roundup of TAP scenarios useful. If we have touched on real problems that currently affect you then why not contact us at solutions@allround.net? We are sure we have a solution that would interest you.

Feature	TAP Converter	TAP Solution	AllRoamer
TAP file version/release conversion	y	y	y
GPRS partials handling	y	y	y
Statistical report generation	o	y	y
File administration	o	y	y
Visitor filtering		y	y
Merging/Splitting TAP files		y	y
High Usage Report		o	y
TAP file Validation		o	y
Re-pricing		o	y
RAP file creation		o	y
Reject and Return process		o	y
Duplication check		o	y
FTP data exchange		o	y
Testing		o	y
External File Interface		o	y
Roaming rating		o	y
Inter-standard roaming			y
Contract and partner management			y
Invoicing			y
Roaming Fraud detection			y
Tariff and Tax validation			y

o | optional y | yes, the feature is supported



ALLROUND
PUTS YOU IN CONTROL

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