

# uniGone - CDR & TAP3 Solutions

## Overview

Mobile networks provide to their subscribers a wide range of services. Providers must support the architecture used to collect and exchange charging data.

International standards organizations define two standards that describe such architectures : Charging Data Record (CDR) and Transferred Account Procedure (TAP). The ASN.1 notation is used to specify the exchanged data.

The Abstract Syntax Notation (ASN.1) is an ITU (International Telecommunication Union) standard used to specify in a formal way the data that are going to be exchanged. It is also a set of encoding rules that enable the translation of such data into normalized formats independent of the programming language memory representation.

**uniGone** provides **CDR Asn1API** and **TAP3 Asn1API** two Java or C# API libraries containing all the necessary material for encoding and decoding data that are specified by CDR and TAP3 ASN.1 schemas.

## Charging Data Record

GSM/UMTS networks generate charging data needed for billing, fraud detection and other applications.

The 3rd Generation Partnership Project (3GPP) publishes a set of specifications to define the GSM/UMTS core network charging architecture and charging data. Information about a chargeable event (e.g. time of call set-up, duration of the call, amount of data transferred, etc) is called CDR (Charging Data Record). The 3GPP specifies CDR ASN.1 schemas for bearer level, subsystem level and service level.

**uniGone** releases the **CDR Asn1API**, a Java or C# library that provides a simple way to handle CDR specified in ASN.1 schemas for Circuit Switched domain, Packet Switched domain (i.e. GPRS), IM subsystem and MMS.

The **CDR Asn1API** encompasses :

- the Java or C# classes generated from the CDR schema;
- the encoding and decoding runtime library;
- a user guide;
- an API documentation;
- usage examples.

## Transferred Account Procedure

Roaming is a key feature of GSM allowing customers from other networks and countries to use their mobiles when they visit any country or network. Operators exchange call event details on their roaming subscribers.

The "GSM Association" representing GSM mobile phone operators defines the TAP3 protocol a mechanism by which operators exchange roaming billing information. Data are defined using an ASN.1 schema.

**uniGone** releases the **TAP3 Asn1API**, a Java or C# library that provides a simple way to handle the data specified in the schema. Moreover the API comes with **TAP3 Converter** a useful tool used to convert TAP3 binary file (BER encoded) to an XML file and vice-versa.

The **TAP3 Asn1API** encompasses :

- the Java or C# classes generated from the TAP schema;
- the encoding and decoding runtime library;
- a user guide;
- an API documentation;
- the **TAP3 Converter** tool (binary to XML and XML to binary);
- usage examples.

## Contact



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