

On Demand CDR Analyser



The Challenge:

Handle huge CDR volumes

- Cost-effective data storage
- Quick analysis results
- Company wide access

The Solution:

On Demand CDR Analyser - OCA

The Benefit:

Save money by

- Quick analysis of problems
- Identifying unexpected anomalies
- Identifying future bottlenecks
- Minimizing storage hardware

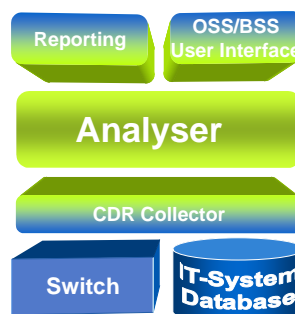
The Challenge

Today, in each branch of industry huge amounts of data accumulates. These data typically contain vastly different kinds of information. The analysis of this information is often necessary for business reasons or at least helpful to support the daily work. Storing huge amounts of data is cost intensive in terms hardware as well as in database software licenses. Analysis with standard methods (e.g. SQL) takes a lot of time and blocks system resources. Especially within the telco industry, where CDRs are basis of every business, it is a must, to have a tool for quick analysis of large amounts of CDRs. Such a tool has to cope with the following challenges:

- Cost effective storage of large amounts of CDRs
- Sophisticated and fast analysis
- Clear presentation of analysis results.
- Retrieve original data.
- Protect data against unauthorised access

The Solution

OCA is based on three processing levels.



The OCR Collector module is designed to handle CDRs generated by the switches or delivered by upstream IT-systems in the billing chain.

The OSS-staff use the analysis of raw-CDRs for tracking network behaviour. The BSS-staff use the analysis of rated-CDRs for solving business related problems. Moreover, sales and marketing people can extract powerful business information from the OCA Analysis results.

The OCA user interface and reporting engine is specially designed for convenient usage. They contain several one click configurations which are often used by the respective staff.

The following list shows the data captured by the standard OCA tool. Addition of customer specific data or hiding unused data is also possible.

- Start timestamp
- Switch (in-trunk, out-trunk)
- Sequence identifier
- Successful call indicator
- Setup time
- Call duration
- Calling party (A-number)
- Dialed digits (B-Number)
- Translated or re-routed number (C-Number)
- Customer identifier
- Any kind of service indicators
- Any kind of quality indicators
- In-POI
- Out-POI
- Destination
- Tariff identifier

| Year | Σ CDR | Σ Call | Σ Duration | Σ Setup Time |
|------------------|--------|--------|------------|--------------|
| 2006.10.04 | 885450 | 491315 | 82105924 | 12345125 |
| 2006.10.04 09:11 | 6412 | | | 0.72% |
| 2006.10.04 09:12 | 6542 | | | 0.74% |
| 2006.10.04 09:13 | 6417 | | | 0.72% |
| 2006.10.04 09:14 | 6251 | | | 0.71% |
| 2006.10.04 09:15 | 5916 | | | 0.67% |
| 2006.10.04 09:16 | 5758 | | | 0.65% |
| 2006.10.04 09:17 | 5282 | | | 0.60% |
| 2006.10.04 09:18 | 3519 | | | 0.40% |
| 2006.10.04 09:19 | 2874 | | | 0.32% |
| 2006.10.04 09:20 | 2667 | | | 0.30% |
| 2006.10.04 09:21 | 1694 | | | 0.18% |
| 2006.10.04 09:22 | 130 | | | 0.01% |
| 2006.10.04 09:23 | 151 | | | 0.02% |
| 2006.10.04 09:24 | 188 | | | 0.02% |
| 2006.10.04 09:25 | 220 | | | 0.02% |
| 2006.10.04 09:26 | 250 | | | 0.03% |
| 2006.10.04 09:27 | 306 | | | 0.03% |
| 2006.10.04 09:28 | 349 | | | 0.04% |
| 2006.10.04 09:29 | 471 | | | 0.05% |
| 2006.10.04 09:30 | 618 | | | 0.07% |
| 2006.10.04 09:31 | 760 | | | 0.09% |
| 2006.10.04 09:32 | 1043 | | | 0.12% |
| 2006.10.04 09:33 | 1720 | | | 0.19% |
| 2006.10.04 09:34 | 3583 | | | 0.40% |
| 2006.10.04 09:35 | 3952 | | | 0.45% |
| 2006.10.04 09:36 | 5109 | | | 0.58% |
| 2006.10.04 09:37 | 6493 | | | 0.73% |
| 2006.10.04 09:38 | 6517 | | | 0.74% |
| 2006.10.04 09:39 | 6500 | | | 0.73% |
| 2006.10.04 09:40 | 6490 | | | 0.73% |
| 2006.10.04 09:41 | 6436 | | | 0.73% |
| 2006.10.04 09:42 | 6474 | | | 0.73% |

The snapshot of the OCA Analyser screen shows the look and feel and gives an impression of the analysis power of OCA. The screen shows three sections: The right section contains data filter configuration and the command buttons. By clicking on 'Analyse', the underlying CANAL engine analyses the data according to the current filter configuration and displays the results in the middle section. In the 'VIEWS' section –on the left -users can choose which data columns to display and in the header line (middle section) what information will be shown. In the above example the user chose to see the analysis results 'ΣCDR per Minute' (both green coloured). The four boxes below the header line contain the total sums of the displayed data. The user gets all information at a glance.

Technical Issues

As a company wide solution, OCA is a web-based application. All users can utilize the different components and modules on a common platform using a standard browser (min. Internet Explorer 6.0) as front-end. The back-end runs under Microsoft Windows Server 2003 and Microsoft SQL Server 2000 / 2005.

The Benefits

Using the OCA tool you benefit by:

- Save money by quick analysis of problems.
- Save money by identifying unexpected anomalies.
- Save money by identifying future bottlenecks.
- Save money by minimising storage hardware.

Reference

Ascom has provided **Deutsche Telekom AG (T-Com)** with such a solution.

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