



ClearPeaks

Managing the ins and outs of an end-to-end BI system

ClearPeaks enhances Andorra Telecom's Information Centre (CDI)

As a national telecommunications provider, SOM Andorra Telecom is responsible for managing large volumes of vital business data. Andorra Telecom operates five data source systems that contain information on billing and pricing, customer details, infrastructure (i.e. lines, boxes, cables), communication transactions (i.e. roaming calls, ADSL time), and corporate accounting.

Several of these source systems at Andorra Telecom are interrelated. For example, roaming calls are linked to individual customers in the customer relationship management (CRM) system, which are subsequently linked to billing and promotions.

In order to manage their business and meet the evolving needs of customers, Andorra Telecom set out to develop an Information Centre (CDI), an end-to-end Business Intelligence (BI) system with high-quality reporting functionalities. Along the way Andorra Telecom enlisted the services of ClearPeaks to help solve critical system and process issues and suggest improvements to the overall project.

Confronting New Challenges

Prior to enlisting the help of ClearPeaks, Andorra Telecom worked with other business intelligence companies to develop a data warehouse and with it, an ETL process to extract data from source systems, transform it to fit business needs and load it into the data warehouse. The process was designed to allow Andorra Telecom to integrate related data and generate reports for a complete view of their business.

However, several challenges arose with the source systems, ETL process and reporting environments in the early stages of the project, which kept Andorra Telecom from realizing the full potential of the CDI.

Assessing the Issues from Front to Back

When ClearPeaks joined forces with Andorra Telecom, a dedicated team of BI consultants conducted a detailed audit of the source systems, ETL, data warehouse and reporting environments in order to understand the ins and outs of the system. This assessment revealed a number of back-end and front-end challenges.

The audit indicated that some of the source system data was not loading into the target properly. As a result, the data warehouse was missing 20 – 40% of the required data (especially from the billing system and Siebel CRM system). As a temporary fix, Andorra Telecom IT team members were manually adding missing data to the data warehouse, which proved to be a time consuming procedure. In addition, fixes had to be done during production, which interfered with the Andorra Telecom reporting process. In relation to the front-end reporting environment, ClearPeaks also found that certain reports were taking longer to refresh than expected.

In addition to fixing both the ETL and reporting challenges (identified in the initial assessment), ClearPeaks developed a plan to enhance the entire Information Centre. ▶



The Company

Andorra Telecom

Industry

Telecommunications

Objectives

- To ensure data from the source systems is sent to the target and loaded properly (at all times)
- To identify and resolve data quality issues quickly
- To improve the quality of reports run with information from Siebel
- To set up end-to-end processes for new source system

The ClearPeaks Difference

- In-depth knowledge of BI projects for the Telecommunication industry
- Experience with ETL processes and quality assurance
- Well versed in SAP/Business Objects reporting environment and XI Migrations
- Committed to fixing current issues & proposing long term improvements

Customer Benefits

- Automated quality assurance system ensures that data is loaded correctly and accurately
- Issues with Siebel CRM resolved by modifying extraction process
- Migration to SAP/BusinessObjects XI provides enhanced reporting capabilities
- Reports are aligned to business terms making them more user-friendly



“ClearPeaks has made major improvements to the Andorra Telecom Information Centre over the past two years. We’re experiencing fewer data flow issues from the source systems to the CDI and better reporting performance. We look forward to enhancing the system even further with their support.”

**Josep Misse, Development Area Manager
Andorra Telecom**

Delivering End-to-End Solutions

Source Systems and ETL

After analyzing incidence reports, ClearPeaks consultants investigated each event with source system owners to understand the data flow issues and isolate the problem areas. In order to track and improve the ETL process, ClearPeaks developed and implemented a quality assurance procedure for the billing system:

- The quality assurance system compares data in the Information Centre with the source system to make sure that the information is the same.
- If the data in the source system does not match the Information Centre, ClearPeaks investigates the issue and resolves it quickly with the owners of the source system.
- Quality assurance is reported and distributed monthly using the ClearPeaks’ ReportMessenger™ program to show the status of any issues.

Challenges related to Siebel CRM were also resolved by isolating the problem and making adjustments to the extraction process.

Reporting Environment

In order to provide Andorra Telecom with access to improved reporting functionality and capabilities, ClearPeaks recommended migrating from SAP/BusinessObjects 6.5 to SAP/BusinessObjects XI.

Subsequently, ClearPeaks consultants migrated nearly 500 Andorra Telecom reports and 75 users to the new SAP/Business Objects XI platform. Issues with long-running queries were resolved by making adjustments to the data warehouse and the universes, which were also dramatically improved in the process.

Next Steps

ClearPeaks and Andorra Telecom continue to work together to enhance the Information Centre.

One of the next steps is to link a new source system (for fiber optics) with the Information Centre, ensuring that data is extracted, transformed and loaded correctly. ClearPeaks will also set up the key performance indicators to meet reporting requirements and link these to the current SAP/Business Objects universe.

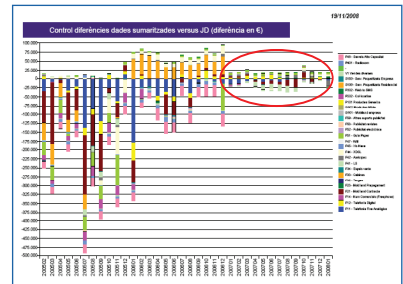
In addition, ClearPeaks has identified longer-term improvements to the Information Centre, including an overhaul of the end-to-end system (incorporating SAP/Business Objects Data Integrator). The goal of this overhaul is to reach 100% data flow accuracy and optimize reporting performance.

DATA / SISTEMA	ANDORRA (T)			FI (I)			FIX_FREPHONE (DS)			GPRS (S)		
	CDI	GMV	CDI-GMV	CDI	GMV	CDI-GMV	CDI	GMV	CDI-GMV	CDI	GMV	CDI-GMV
14/000000	41.811	41.811	0	109.539	109.539	0	211	211	0	2.020	2.020	0
14/000001	28.725	28.725	0	224.714	224.714	0	482	482	0	2.960	2.960	0
14/000002	23.947	23.947	0	223.911	223.911	0	404	404	0	2.544	2.544	0
14/000003	17.985	17.985	0	224.714	224.714	0	417	417	0	2.462	2.462	0
14/000004	23.941	23.941	0	217.914	217.914	0	402	402	0	2.724	2.724	0
14/000005	41.387	41.387	0	119.620	119.620	-87	520	520	0	2.751	2.751	0
14/000006	24.189	24.189	0	127.949	127.949	0	231	231	0	2.236	2.236	0
14/000007	41.963	41.963	0	103.928	103.928	0	281	281	0	2.229	2.229	0
14/000008	27.844	27.844	0	221.838	221.838	0	484	484	0	3.245	3.245	0
14/000009	28.989	28.989	0	224.464	224.464	0	418	418	0	2.987	2.987	0
14/000010	29.900	29.900	0	199.219	199.219	0	1.948	1.948	0	3.243	3.243	-1
14/000011	24.846	24.846	0	227.193	227.193	0	474	474	0	3.189	3.189	-1
14/000012	44.432	44.432	0	189.889	189.889	0	398	398	0	2.951	2.951	0
14/000013	43.993	43.993	0	186.962	186.962	0	227	227	0	2.526	2.526	0
14/000014	43.929	43.929	0	196.939	196.939	0	228	228	0	2.287	2.287	0
14/000015	41.765	41.764	-1	183.814	183.811	-3	452	452	0	2.248	2.248	-1
14/000016	422	43.768	-418	104.244	104.482	238	111.253	299	-188	2.510	1.821	-689
Suma	871.797	712.987	-158.810	8.202.939	8.933.482	720.543	8.887	8.881	-6	86.482	88.818	-2.336

Andorra Telecom quality assurance incidence report (issues highlighted in red)

DATA / SISTEMA	ANDORRA (T)			FI (I)			FIX_FREPHONE (DS)			GPRS (S)		
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Suma	1.227.741	1.227.741	0	8.202.939	8.933.482	720.543	8.887	8.881	-6	87.884	87.887	-3

Andorra Telecom month-end quality assurance report (incidences have been resolved)



Andorra Telecom SAP/BusinessObjects report indicating differences between the corporate accounting system and billing system each month. The red circle highlights improvements made since ClearPeaks took over the project.

About Andorra Telecom

SOM Andorra Telecom exclusively manages telecommunications services in Andorra, including fixed phone lines, mobile phone lines, data transmission, Internet, international communications.

Andorra Telecom is also responsible for managing the technical infrastructures and national broadcasting networks for radio and television in Andorra. For more information on Andorra Telecom, visit www.sta.ad.