

Client: The Carbon Trust

Industry: Central Government

Project: Business Intelligence

Project Summary



Customer

The Carbon Trust is an independent company currently funded by government, although increasingly seeking to fund itself via the commercial benefits it delivers to its clients. Its aim is to accelerate the movement of the UK towards a low carbon economy. This involves visiting or advising a high proportion of all commercial and public organisations across the UK and making recommendations on how they can save energy costs by introducing new technologies or improving behaviours.

An important aspect of the work of the Carbon Trust is analysing and reporting on its own progress in order to direct efforts towards the most cost-effective areas, to keep government informed on changes in the UK's energy consumption profile and to demonstrate its performance against agreed targets.

Business Challenges

The Carbon Trust faced reporting challenges brought about by distribution of data in isolated silos:

- Details of savings recommended during surveys are held on Excel spreadsheets sent in by hundreds of independent consultants working on behalf of The Carbon Trust.
- Details of follow-up calls made from contact centre to establish actual savings achieved are stored on a SQL Server database
- Client company details held and managed through Salesforce.com, a hosted service accessed via the Internet.
- Detail on payments to consultants for costs associated with carrying out surveys held on an Access database managed by a 3rd party organisation.

Project Summary



Prior to introduction of BI tools, collating information was a largely ad hoc manual process managed via Access databases and Excel. This was no longer considered fit for purpose for the following reasons:

- The Carbon Trust is required to report to government on an annual basis the volume of savings delivered. In 2007, for the first time this was planned to include an audit (performed by KPMG) to provide assurance that data capture and reporting methodologies delivered sound and reliable results in terms of Carbon Emissions savings. Clear and demonstrable reporting methods were required to satisfy the auditors.
- The Carbon Trust is set annual targets for emissions savings. Progress against these targets must be monitored throughout the year, and accuracy of reporting against these targets is of paramount importance.
- Complex calculations are required to derive tonnes of carbon savings emissions saved, based on factors such as projected useful life of change implemented, energy source used and year in which savings were or will be realised. In order to ensure consistent application, these calculations must be defined and implemented centrally.

Project Summary



Solution

Ridgian implemented a Business Intelligence system built on the Microsoft platform:

- SQL Server databases provided a staging data area and Data Warehouse, representing a single repository for information derived from the various silos.
- SQL Server Integration Services (SSIS) was used to extract transform and load data from the various silos via a fully automated process on a nightly basis, including web services-based connection to Salesforce.com over the Internet.
- SQL Server Analysis Services used to create OLAP cubes, storing aggregations and centralising calculations using MDX.
- Reporting was delivered using a combination of SQL Server Reporting Services (SSRS) and Microsoft Office Performance Point Server (ProClarity). SSRS was used predominantly for standard regular reports, where as ProClarity was employed by analysts for ad hoc reporting. Analysts also able to publish results of ad hoc reporting for wider consumption. All reporting involves the same data source and delivers consistent results.
- The system delivers Scorecards showing performance against Business and Aspirational targets, showing accurate position up-to-date to close of previous day.
- All reports available via on-line self-service access.

Project Summary



Solution (continued)

- Opportunity to freely analyse information according to a various factors, including geographical area, industry sector, technology type, category of survey, energy spend banding of organisation, department dealing with the service, 3rd party consultancy employed. Drill down is provided allowing analysis from wider to narrower groupings.
- The Data Warehouse also provides automated feeds into other transactional systems in XML format.
- Ridgian delivered training in ad hoc reporting techniques.
- Monitoring and system performance reporting provided. Faults quickly identified an administrators automatically emailed. Browsing activity reports identify which reports are used most often.

Project Summary



Business Benefits

The system has been a great success in supporting organisational goals and continues to grow, encompassing more business areas and deeper analysis. Benefits include:

- Cost savings achieved through elimination of intensive manual effort on a regular weekly basis and especially during the intensive year end process.
- Clearer view of organisational performance through central repository superseding local departmental ad hoc solutions and leading, through improved targeting approach, to increased motivation and higher performing work force.
- Improved decision-making through analysis and identification of most cost-effective technologies and product types
- Better planning through accurate forecasting based on all available information
- Enhanced prestige through delivery of easy-to-access and well-presented information to government and internal stake holders

Project Structure



An incremental approach was taken with this project, delivering core reporting with maximum benefit as soon as possible, providing immediate return on investment, with successive stages widening the scope and depth of information. The first phase was completed in early 2007, and continues to be extended and enhanced up to the present date.

The system is designed as far as possible to cope with inevitable change in reporting requirements and targeting approaches. Great importance was given to manageability and ongoing maintenance of the system. The system reports on itself, quickly alerting support staff to data anomalies, processing failures and most used and least used reports. Documentation and Training have been provided to support staff and key user groups. The project is a team-based development working 50% on site, 50 % off site and is deployed into a virtualised environment in co-operation with ATOS Origin, service-providers to The Carbon Trust.

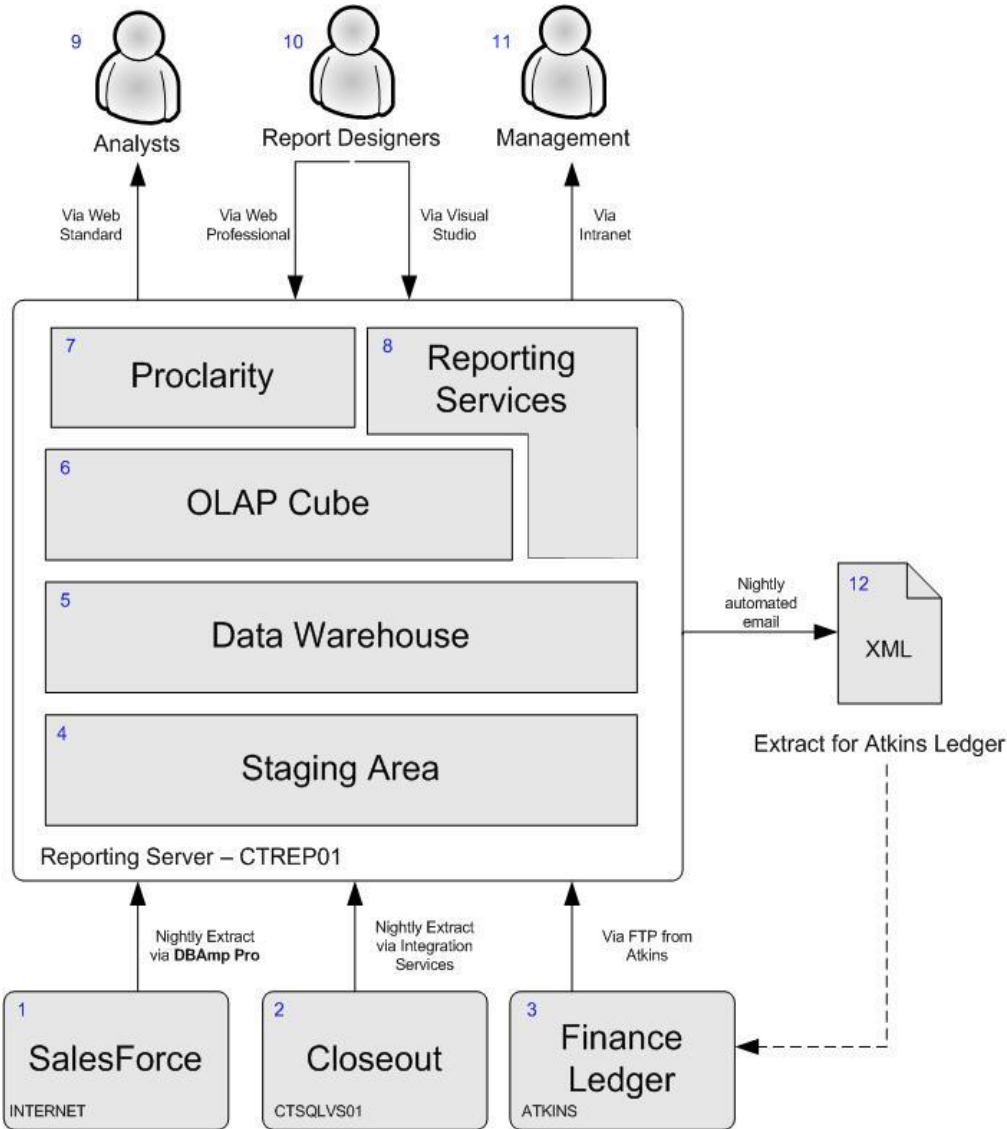
Technology Summary



The Carbon Trust solution is based entirely on Microsoft technology and comprises of:

- Microsoft SQL Server 2005
- Microsoft SQL Server 2005 Reporting and Analysis Services
- Windows Server 2003
- Proclarity / Performance Point Server

System Diagram



Screen Shots



Welcome Administrator ?

Log out

This Site

Site Actions ▾

Welcome **Carbon Performance** Identified Savings Call Volumes Call Trends Call Sectors Forecasts

Year To Date Performance

Financial Year: FY2007-08 ▾

CT25 - RS Carbon Performance

Carbon Performance Report

By Product Owner

Report Date: 24/02/2009

Period: Year To Date FY2007-08

IMPLEMENTED	Annual Implemented			Lifetime Implemented			Persistence	
	tCO2 YTD	Target	% Achieved	tCO2 YTD	Target	% Achieved	Achieved*	Target
Teams								
Key Account Managers	512,152	667,000	77%	1,733,702	2,768,050	63%	3.39	4.15
Customer Centre	450,812	457,000	99%	1,656,616	1,828,000	91%	3.67	4.00
Northern Ireland	109,188	120,000	91%	707,606	588,000	120%	6.48	4.90
Scotland	137,203	125,000	110%	640,523	625,000	102%	4.67	5.00
Wales	103,027	110,000	94%	502,810	440,000	114%	4.88	4.00
Loans			0%			0%		
Low Carbon Collaborations			0%			0%		
Team Total	1,312,382	1,479,000	89%	5,241,257	6,249,050	84%	3.99	4.23

IDENTIFIED	Annual Identified			Lifetime Identified			Persistence	
	tCO2 YTD	Target	% Achieved	tCO2 YTD	Target	% Achieved	Achieved	Target
Teams								
Key Account Managers	2,125,692	1,818,800	117%	9,136,605	7,548,020	121%	4.30	4.15
Customer Centre	1,169,011	1,300,000	90%	4,884,016	5,200,000	94%	4.18	4.00
Northern Ireland	162,240	110,000	147%	918,510	245,000	375%	5.66	2.23
Scotland	425,670	310,000	137%	1,963,036	1,550,000	127%	4.61	5.00
Wales	296,169	235,000	126%	1,721,799	940,000	183%	5.81	4.00
Loans			0%			0%		
Low Carbon Collaborations			0%			0%		
Team Total	4,178,782	3,773,800	111%	18,623,966	15,483,020	120%	4.46	4.10



Microsoft Partner

Gold Business Intelligence
Gold Portals and Collaboration



Graphs

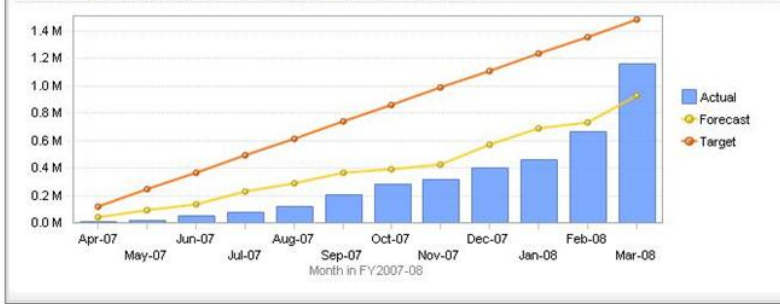
CT Dashboard 08 - Forecasting :

Table Drilldowns | **Graphs**

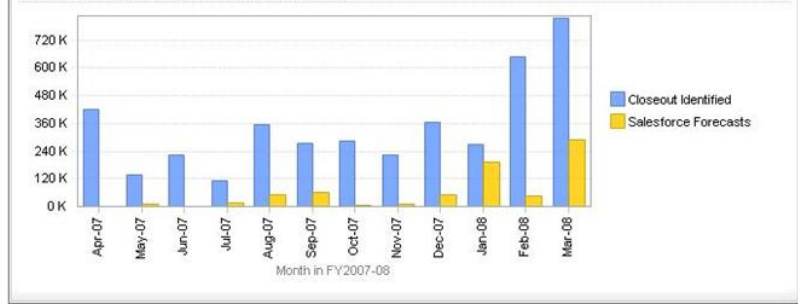
Teams: All

Sectors: All

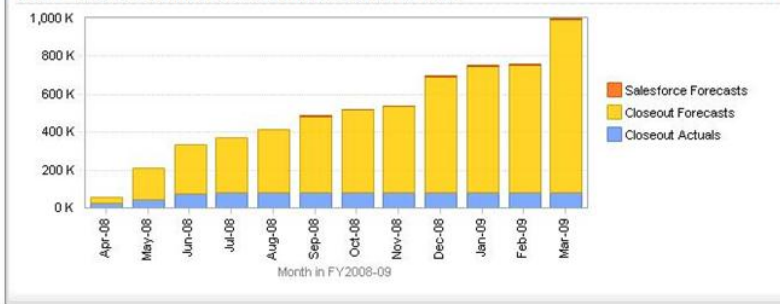
CT22 - PAS Cumulative Forecast Implemented vs Target



CT20 - PAS Identified Forecast vs Actual



CT21 - PAS Cumulative Forecast Implemented by Type



CT24 - PAS Cumulative Forecast Implemented - by Product Type

