

STCS PROJECT PROFILE

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# Homes and Communities Agency Data Warehouse and Business Objects



STCS

## HOMES AND COMMUNITIES AGENCY

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The Homes and Communities Agency (HCA) is the national housing and regeneration agency for England, with an annual investment budget of more than £5bn. The HCA was formed on 1 December 2008 through the transfer of the functions and assets of English Partnerships; the investment functions of the Housing Corporation; a number of delivery programmes from Communities and Local Government and the transfer of the Academy for Sustainable Communities.

The Homes and Communities Agency is a non-departmental public body and their sponsor government department is Communities and Local Government (CLG).

The statutory objects of the HCA, as listed in the Housing and Regeneration Act 2008 are to:

- improve the supply and quality of housing in England
- secure the regeneration or development of land or infrastructure in England
- support in other ways the creation, regeneration or development of communities in England or their continued well-being
- contribute to the achievement of sustainable development and good design in England, with a view to meeting the needs of people living in England.

## PROJECT REQUIREMENT AND SCOPE

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The client required a mechanism to gather information from a variety of sources and integrate them for reporting purposes. It was agreed that an Oracle Database would be created, with a mechanism to copy data into that database from multiple sources, and refresh the information in the database on a daily basis. Existing applications and data sources were reviewed to identify information required. An Oracle database has been created along with mechanisms to connect to the various data sources. Database tables were designed and scripts written to create and populate those tables. The initial phase of the project concentrated primarily on extracting data from two systems, but the warehouse has since been expanded to include data from several other systems. The warehouse includes mechanisms for matching data to ensure only consistent information is allowed through to the warehouse. Several Business Objects universes have also been developed to report this information.

Information in the Data Warehouse can be accessed by HCA's intranet, and Business Objects for ad-hoc reporting. It is also accessed by other applications as a source of shared data to provide consistency of information and integration across the systems.

STCS have provided ongoing support and development of the



**“We are very committed to our relationship with STCS and appreciative of our long track record of successful partnership – the results speak for themselves.**

**We are looking forward to taking this forward into HCA in a way that is highly effective for both parties.”**

**David Wilson, Applications Manager  
Homes and Communities Agency**



Data Warehouse and Business Objects, since 2004 when the initial warehouse was implemented.

STCS provide the following services for this:

- Second-line application support, and occasional first-line support
- Training and support of HCA Applications Development staff
- Business Analysis and System Design
- Impact Analysis
- Database and interface design and development
- Peer Reviews
- Testing
- Database installation and administration
- Performance-tuning

We provide a mixture of on-site and remote support, and have build up a close working relationship with the client, allowing us to react very quickly to any urgent Change Requests or support issues.

## **TECHNICAL APPROACH**

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This project included development of a new database, interfaces to/from the database from other databases, and continuing support of the developed assets. The data requirements were captured based upon current reporting requirements and frequently used information in the applications. These were then converted into a database design including de-normalised data and indexes to improve performance. SQL and PL/SQL scripts were written to extract data from other data sources via SQL\*Net and ODBC (including Oracle, Lotus Notes, MS Access, dBASE) and store the extracted data in the Data Warehouse. These scripts are run every evening to ensure that the database is correct as of close of business for the previous day. The performance of the database was then tested, and compared to accessing the information in the 'live' data sources.

Some of the Data Warehouse information has been made available in HCA's intranet, and is being used by other bespoke applications.

STCS has also developed a Business Objects universe to provide a complete picture a of HCA's involvement with HCA's Developers and Partners and to improve consistency across systems.

A batch process has been developed to monitor all stages of the overnight refresh and to email a status report to key IT support staff.

For ongoing development and support, any required changes to the system are investigated and specifications consisting of data requirements and possibly a narrative description of the processing

are agreed with the client. Impact analysis is completed to assess impact upon other areas of the system, or other systems. Database changes are then designed, and data warehouse refresh script changes are developed. These are then peer reviewed before going to System testing, and then on to User Acceptance Testing. Changes may be batched with other changes before being scheduled to go live.

## **KEY TECHNOLOGIES USED**

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The system has been built using the following technologies:

- Oracle Designer (versions 6i –10g)
- Oracle Database (8i – 10gR2)
- Oracle SQL and PL/SQL (8i – 10gR2)
- Business Objects v6.5
- HP L2000 HP-UX10 server, migrated to Windows Server 2003 R2
- ODBC
- Lotus Notes SQL v3
- Microsoft Access 2000
- Sculptor