WATI

Designing and Developing Data-warehouse for WDACS

WATI integrates data from various WDACS and County-Wide systems into a One Data Warehouse.

The development of the Data Warehouse is extremely critical for effective management of all aspects of the claim automation, including cost allocation and revenue claiming.

SOLUTION

- *Integrate the data from various WDACS and County-Wide systems under a single application architecture and relational database*
- *Automated ETL processes*

FEATURES

Business Intelligence Edge using **COGNOS**

DATA-FLOW from multiple county-wide systems

IN DEPTH VIEW into the data

Automated **EXTRACTION**, **TRANSFORM** and **LOAD** processes

WDACS
WORKFORCE DEVELOPMENT
AGING & COMMUNITY SERVICES

LA County Department of Workforce Development, Aging & Community Services

Los Angeles, CA

wdacs.lacounty.gov

CHALLENGES

- Coordination and integration with multiple departments

- Wide variety of Data handling operations

- Setup in multiple environments

The Challenge

The development of the data warehouse is extremely critical for effective management of all aspects of the claim automation, including cost allocation and revenue claiming.

However, developing such portal required merging the data from various WDACS and County-Wide systems (eCAPS, Cost Allocation, Time Collection, Inventory, and Item Control) under a single application architecture and relational database. Coordination with County resources to initiate development and integration activities forms a significant portion of this engagement.

The Solution

WATI reviewed and documented the administrative systems to create data flow diagrams for Time-sheets, Cost Allocation, Inventory, Item control, and worked with County Management and Users to assist in the transition to eCAPS modules for HR (item control), inventory, cost allocation, and time management. The activities included analyzing internal systems at WDACS and mapping data elements and procedures to the new systems. WATI upgraded automated interfaces to County-Wide financial and HR systems such as eCAPS, CWPAY and CWTAPPS. The activities included analyzing the data requirements at WDACS, identifying the requisite source elements, and coding transformations as needed (VBScript, T-SQL, PL/SQL). WATI worked with County Department staff to enable the transition of an expense claiming solution specific to the requirements of WDACS using data from eCAPS G/L and the HRA (item control) module. WATI designed system specifications for contract analysis, revenue, expenditure and staffing analysis.

WATI defined logical data models (LDM) to depict the logical entity types and the relationships between the entities across all of the key subject areas. Based on the LDM, WATI developed a physical data model (PDM) to define the internal schema of a database, including tables, columns and proposed relationships between the tables. WATI extended the OLAP database to support required data (aggregated and transactional) along with derived relationship tables using County standards. WATI extended and bridged existing systems to allow for distributed maintenance and data relationships as well as added operational functionality.

WATI developed and automated extraction, transform and load processes for data residing in the source systems. The team built all database objects necessary to support the Cognos Analytics and reporting environment including tables, views, materialized views, procedures, DB links, triggers, sequences.

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The team planned and designed all pre-staging, staging and aggregation tables. The team built star schemas for various reporting requirements and data marts for various subject areas within WDACS utilizing Oracle SQL Developer, TOAD and Cognos framework manager.

Results

WATI built the Data warehouse as per specifications with all its components of

- data marts,
- Analytics reporting environment, and
- ETL Processes

The data warehouse is used to build self-service BI portal