IDMS Conversion

The Modern Systems IDMS conversion includes the generation of a new relational database to replace the functionality, set relationships, indexes, and data structures that are currently part of the IDMS network database. The new target database can reside on or off the mainframe, and can use any of the standard relational database management systems (RDBMS): Microsoft SQL Server, Oracle or IBM DB2.

DB-Shuttle™ provides automated technology that protects legacy assets, reduces maintenance costs, provides agility and flexibility, and enables Service-Oriented Architecture (SOA) within business-critical applications.

Database Functionality

The Modern Systems solution provides a complete replacement for all IDMS database functionality:

- IDMS record layouts
    - Group-level elements, Occurs and Redefines clauses within IDMS record definitions
    - Set definitions (record-to-record relationships)
    - System-owned indexes
    - Bill-of-material structures
    - Multi-member sets, multi-set relationships between two record types
    - Duplicate CALC designations
    - Sorted sets, Chained sets and NEXT sets

Relational Results

The resulting database is fully relational. Primary keys, foreign keys and index definitions are automatically created. All constraints are generated into the resulting DDL. Table spaces, indexes, table names and column names are all generated according to your naming standards.

Delivered Components

As part of the delivery process, Modern Systems generates and delivers the following component types for installation in the new relational database processing environment by using DB-Shuttle:

- Data Definition Language (DDL) Syntax for the new database
- IDMS Data Extract programs, generated in COBOL, to unload all IDMS data to the correct format for relational database load utility
- IDMS Data Extract JCL, customized to your environment, to execute the extracts
- Load Syntax (optional) for use by relational database load utility
- RI Check Syntax and RUNSTATS Syntax (optional) for use by relational database utility package
- DCLGEN syntax (optional) to define COBOL layouts of the tables for replacement applications

IDMS Conversion

IDMS Data Conversion

The IDMS data extract and relational load process is simple and straightforward. During the extract process, all IDMS traversal is based upon mandatory/optional set relationships and the clustering specifications defined within the IDMS schema. The IDMS data extracts are fast and can be executed simultaneously. Modern Systems can provide a number of extract variations for sites that have special requirements for a short IDMS conversion window. Data conversion during the cut-over weekend or evening is always fast and complete.

Customization Workbenches

Special workbenches within DB-Shuttle provide additional capabilities for tailoring your IDMS migration so that it better meets your needs and requirements:

- Re-name Workbenches to allow full naming of all tables, columns, table spaces and indexes
- Data Cleansing Workbench to provide rule-based data cleansing during the IDMS data extracts
- Date Conversion Workbench to allow the specification of the format of IDMS date fields along with the individual IDMS date field minimum and maximum values so that the DATE column specification can be used in relational databases (all date formats are supported)
- Element Re-name Workbench which allows selection of group-level or elementary IDMS fields for use as columns in the relational database
- Record Re-Definition Workbench to allow changes to field types and lengths during the conversion
- Set Re-Definition Workbench to allow changes in the set definitions during the IDMS conversion
- Co-Existence Record Conversion Workbench for sites who choose to convert and implement their large IDMS databases using a phased approach, specifying groups of IDMS record types per phase

Visibility & Knowledge-Building

Modern Systems ensures that the customer teams (and the Modern Systems teams) have a full understanding of existing IDMS databases, as well as a full understanding of the post-conversion relational database. DB-Shuttle generates many reports and diagrams to assist with this knowledge-building process:

- Complete Bachman diagrams for the IDMS database structures
- Complete Entity Relationship Model (ERM) diagrams for the relational databases
- Summary reports of the sizes and relationships within the IDMS and relational structures
- Scoring Reports that rate the complexity of each IDMS record type as it relates to the IDMS migration to a relational definition
- Matrices relate records to tables, elements to columns, IDMS records to extract programs, and more
- Date Finder and Key Identifier reports that allow team members to define selected fields and columns to ensure that the migration addresses all requirements for date conversion and key mapping
- Hundreds of ad hoc reports to assist in further detailed identification of unique processing