SIGTAS MIGRATION

ORACLE®

Upgrade SIGTAS to well Supported, Stable web based Platform

Background

Inland Revenue Department is the government agency of St. Kitts and Nevis that administers the tax laws in the federation of St. Kitts and Nevis. The agency employs the SIGTAS application, an Oracle based software package for their daily operations of registering tax payers, assessment and collection of taxes. The SIGTAS was implemented at St Kitts in 1999 and in Nevis little later in 2000. Initially SIGTAS was built on Oracle Forms 6i and Reports 6i and Database was Oracle9i.

Introduction

As the communications, media and cloud markets are undergoing significant transformations to compete in the new technical environment, SIGTAS must also upgrade according to the current technology as oracle no longer supports the current platform 6g. New web based version 10g or later provides the complete end to-end solution for managing SIGTAS, supporting key business processes that incorporate generation, capture, collection, and assurance of revenue.

The current version of SIGTAS is built on Oracle Forms 6i and Reports 6i which Oracle has stopped supporting and there is always a risk in having the core revenue system in a technology that is no longer supported by the vendor. Additionally IMF insists on having IRD to upgrade to Oracle forms and reports 10g or later so that it is better supportable by them in the future. Hence IRD is looking to upgrade the Oracle forms and reports to well supported stable version of Oracle forms and reports.

The key business drivers are straight forward:
• De-supported by Oracle
• Take advantage of new features and web deployment
• Reduce the total cost of ownership

Stakeholders

• St Kitts and Nevis IRD Department, VAT Department, Tax Reform Unit, Ministry of Finance, St Kitts & Nevis.
• Belize IRD Department.
• Government of Turks & Caicos IRD

Challenge of Department

Old Technology
• Oracle 6i supports Client/server architecture.
• No Oracle support available for 6i application

Maintenance :
Higher maintenance cost & Staffing cost due to lack of centralized system

VAT Management :
Problem in VAT management due to independent system

Customers :
Tax can not be paid in either Island

Technology Used

• OS- Window Server 2008 R2 64 bit enterprise edition
• Oracle Forms 11g and Reports 11g
• Oracle fusion middleware 11g
• Weblogic 64 bit server
• Oracle 10g Database
• Oracle streaming for data replication

Solutions of Underline Challenges

New System :
A new application is developed to serve the needs of enforcement department.

Lower Maintenance Cost
Implementation of web based applications to manage tasks like Profile Database, Offence Database, Police Database Reports, Incident Reports, Suspect Database and more, reduce manual efforts saving time and money, and they are also low on maintenance.

Sharing flexibility :
Multiple departments can easily get print and share information through emails internally

Rollout Challenges & Complexities

Data Security
• Addition of tax centre concept
Oracle Stream/ Data Replication
• To make the system available in case of network breakdown
• Bi-directional Data synchronization between sites
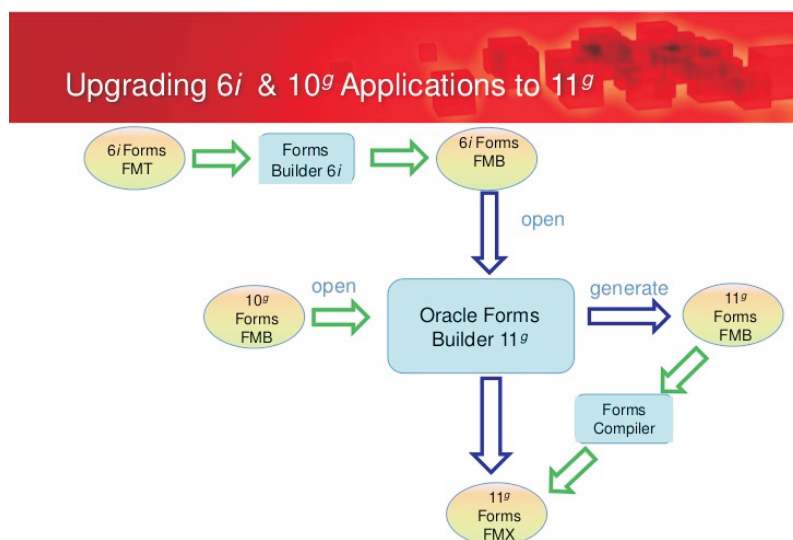### Application Integration
• Modify Forms/reports in the view of integrated system
Data Integration
• Integration of data of both Island
• Filter out duplicate records
Tax Rules Integration
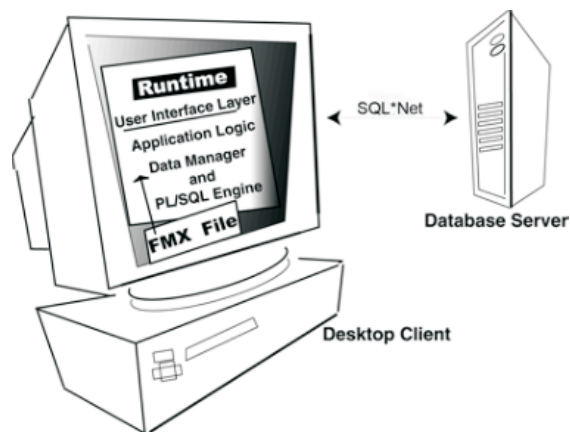
KEY DRAWBACKS OF 6i OVERCOME IN 11G

Below are few key points that overcome in 11g

	6i	11g
Manageability	**High:** having distributed repository and require to create run-time environment on all end-user's system.	**Low:** having centralized repository and not require doing anything on user's system.
Security	**Low:** all end-user's system require direct network access of database server to connect the application using connection string define in run-time environment.	**Very High:** no direct network access require to end-user's system for database server. Database server will be connected only from application server and all end-users will connect application on both Local and Public (internet) network.
Technology	Obsolete and non-competitive	Latest and Competitive
Deployment	Complicated, Slow	Easy, Fast
Performance	Low	Very High
Access	Accessible only on Local network.	Accessible from Local network and Internet.
Product Support	Obsolete by Oracle from more than 10 years and also shut product support (including extended support) completely.	Latest version and full support being provided by Oracle.
Java Support	Very Limited, Invaluable	Full Valuable
Clustering	Not Supported	Supported: multiple physical servers can be maintained in cluster mode so that in case any one of them get crashed then accessibility of application cannot be impacted to users and application will remain available without any delay.
Administration	No admin console provided for admin.	GUI admin console provided for admin.
Skills	No Enhancement	Retain Existing and Enhancement

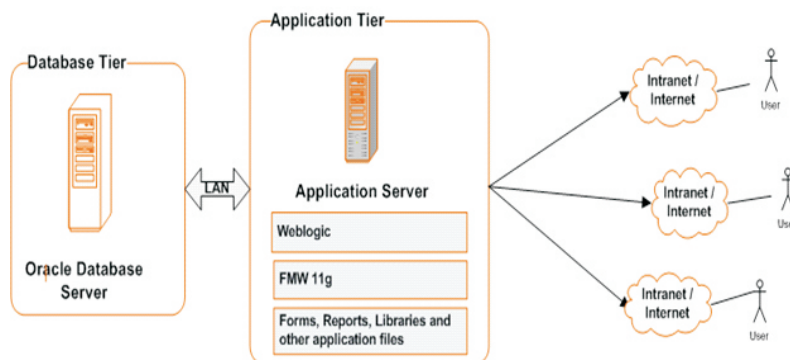# Upgrading Client/server Applications To The Web Based Application

Client/Server Architecture

The client/server-based architecture, as shown in below Figure -1, the Forms Server Runtime Engine and all application logic are installed on the user's desktop machine. All user interface and trigger processing occurs on the client, except for database-server-side triggers and logic that may be included in some applications.

Web Based Architecture

In a Web-based implementation, as shown in below Figure -2 the Forms Services Runtime Engine and all application logic are installed on application servers, and not on client machines. All trigger processing occurs on the database and application servers, while user interface processing occurs on the Forms client, located on users' systems.

Achievements & Benefits

- Integrated system
- Tax can be paid by customers at either location
- Improved MIS
- Web based application
- Performance improvements
- Achieved Disaster recovery
- More user friendly
- Low maintenance cost

Implementation & Major Work Involved

- Two Islands Applications & DB Integration
- Migration of SIGTAS Application from Oracle Forms and Reports 6i to Oracle 11g (Approx. 500 Forms/ 350 Reports)
- Integration/Migration of Database to Oracle 10g (6GB)
- Implementation of Oracle Streaming
- Server Configuration / Oracle Environment Setup
- Addition of Tax Centre Concept
- Security: Access based on User location
- Enhancements/ Production Support

Why Lelogix ?

Low Costs
Onsite/ Offshore delivery model
Provides End to End Solution
Experienced Resources
Production Support & Enhancements
Help you to get Software Licenses
Help you to get Hardware
One shop for all your worries

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