ORGANISATION AND SUBMISSION OF DATABASES IN CARICOM –
A COMMON APPROACH

CARICOM

FOURTH REGIONAL STATISTICAL

RESEARCH SEMINAR

36th MEETING OF THE STANDING COMMITTEE OF

CARIBBEAN STATISTICIANS (36th SCCS)

Belize City, Belize

28 October 2011

OVERVIEW OF PRESENTATION

- Background

- Key issues to be addressed

- Proposed Framework Concept

- Implementation / Follow-up

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BACKGROUND

- Statistics is a key instrument for the monitoring of the Regional Integration Process

- Variation in development of systems for managing statistics among Member States

- Need for a "strong" database with good organization and management, conforming to database standards

FINDINGS FROM REVIEW

- NSOs and Secretariat using a variety of tools and platforms to store and process statistical data.

- MS Excel appears to be most widely used – also used for data submission

- Widespread use of "desktop" databases (in MS Access)

FINDINGS FROM REVIEW (CONT'D)

- At least 10 States reported use of a database server product (from "Web-based Communications" consultants' survey)

- Secretariat also uses MS SQL Server

- With the exception of Jamaica (STATIN) the entities visited did not appear to consolidate data management around server system

DATA MANAGEMENT ISSUES

- Multiple copies of data – no "single point of truth"

- Lack of separation of data storage from data analysis (e.g. in MS Excel)

- Use of "desktop" systems (e.g. Excel, Access) limit possibilities for centralized access, management, and security

- Capability of database servers currently underutilized

DATA SUBMISSION ISSUES

- CARICOM Secretariat faces challenges in getting required data from countries in a timely manner in required format

- Conversely, NSOs report challenges in sourcing, preparing and submitting data

- Progress has been made in defining electronic templates and formats

- Need to further streamline <u>and structure</u> collection/ submission process
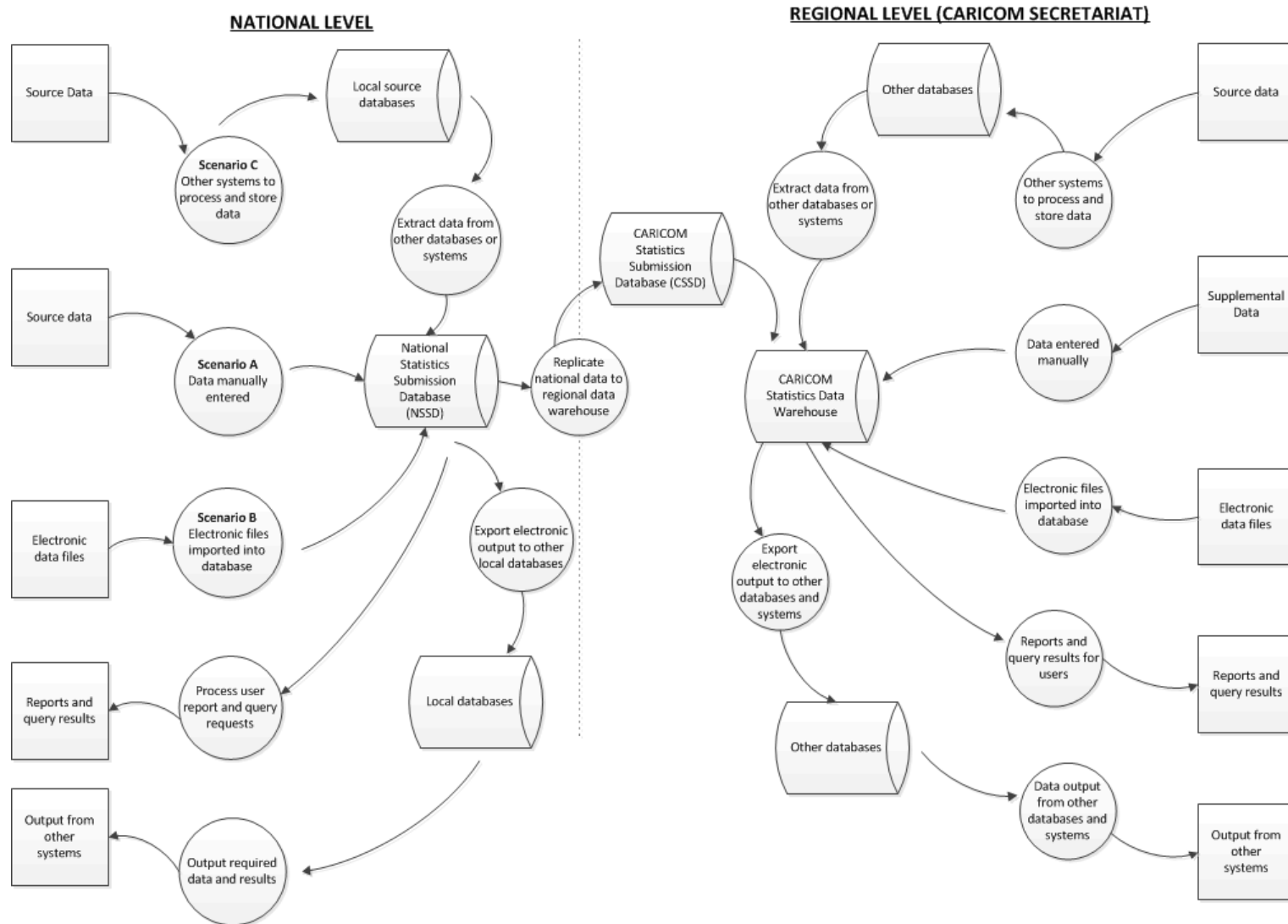
KEY CONSIDERATIONS

- Consistency/ standardization in the structure and properties of data to be submitted

- Minimize duplication in the collection, processing and submission of data

- Move towards consolidation of information resources – support building of "data warehouse" for future data analysis

ISSUE OF STANDARDISATION

- Need to find a standard way of representing different types of data from different countries

- Prior work on harmonization at CARICOM level

- International efforts (e.g. SDMX)

- Standardization requires a full-fledged effort

FRAMEWORK CONCEPT

FEATURES OF CONCEPT

- Centralized database at the national level to hold data for submission (NSSD)

- Decentralized mechanism for updating and maintaining the database

- Regional database at CARICOM Secretariat for aggregating data (CSSD)

- Data "replication" mechanism for updating regional database

DATA SUBMISSION SCENARIOS

Scenario	Description
A	Data entered manually from source documents or other source materials
B	Data imported from electronic files
C	Data obtained directly from database, application or other electronic sources

IMPLEMENTATION OF CONCEPT

- Databases designed for NSSD and CSSD

- Web application for data entry and maintenance

- Data replication routine for forwarding data to CARICOM Secretariat

- Use of query and reporting tools for data access and reporting

PURPOSE

- The purpose of this project is to strengthen the capacity of the CARICOM Statistics Sub programme and the NSO's in Member States, by developing and implementing a secured web-based communication infrastructure for data transfer from Member States to the regional databank at the CARICOM Secretariat.

ACTIVITIES CONDUCTED

- Execution and analysis of the IT and Human Resource Audit

- Preparation of an IT infrastructure needs list

- Field visits to selected member countries

- Testing of the data transmission infrastructure

- Preparation of User Guide/ Training Manual

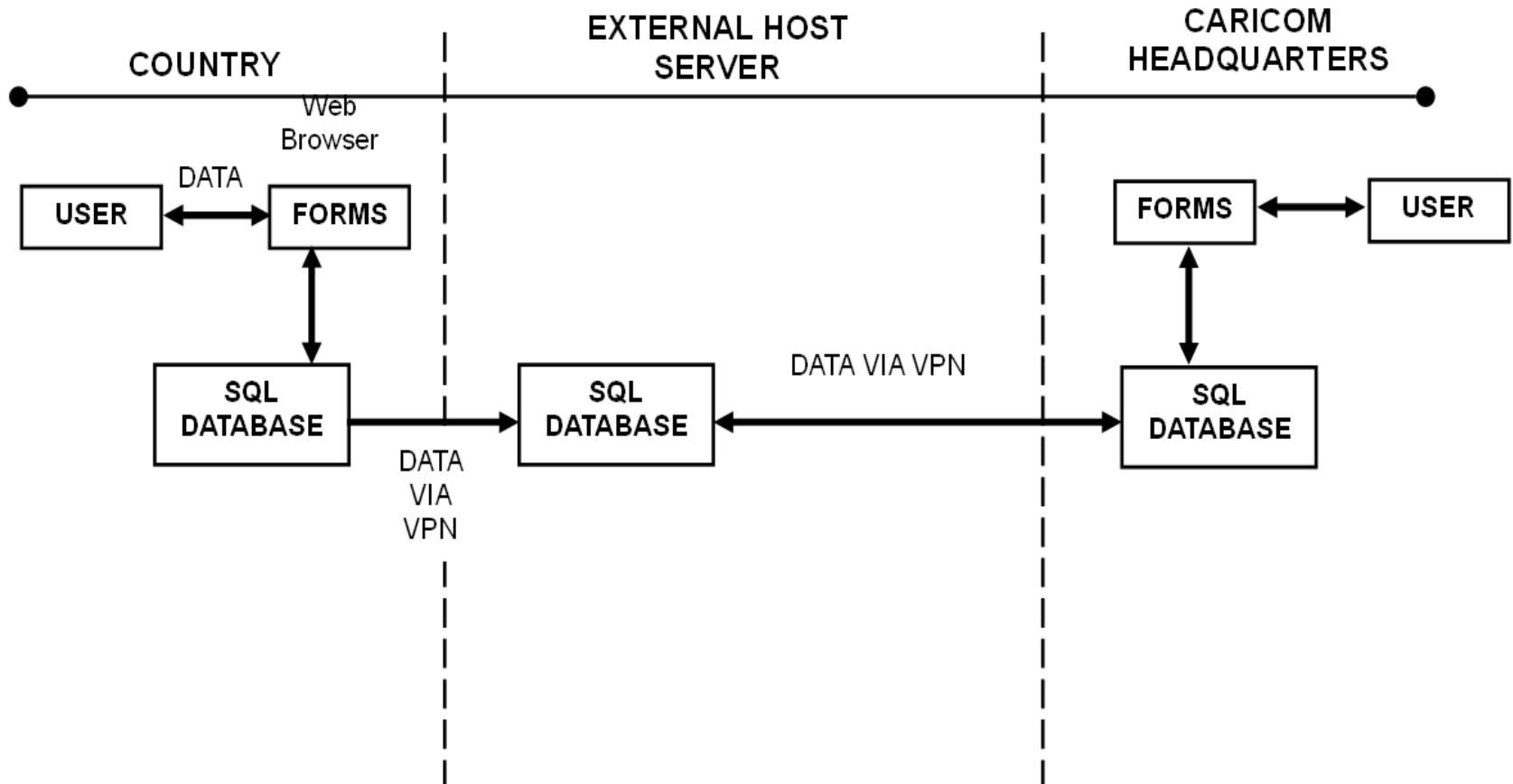- Training in the Installation and Maintenance of the system

MAIN ACHIEVEMENTS

- A detailed design and implementation plan of the proposed system

- An operational and secured Web-based Communication Infrastructure System.

- Technical documentation and user manuals

- Provision of equipment to Member States

PREREQUISITES

- Server

- Microsoft SQL Server 2008 R2

- Stable Internet connection

- Logmein Hamachi VPN Software

HOW THE SYSTEM WORKS

BENEFITS

- Fast, efficient and secure transfer of data

- Procurement of relevant equipment for selected Member States.

- Enhanced Knowledge in SQL and networking techniques through training conducted.

LINKAGES TO OTHER PROJECTS

- Organisation and Use of Statistical Databases Project

- Component III on Data Warehousing and Archiving (Funded by the Inter-American Development Bank)

- Recommendations from the Organisation and Use Project will be used as the foundation of the IDB Project Component.

THE WAY FORWARD

- A pilot run of the developed web-based infrastructure will be conducted in three Member States.

- VPN Software will be upgraded with more security features and unlimited amount of connections.

- Ultimately, it is our intention to implement a system similar to the one being used by Eurostat.

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THANK YOU FOR YOUR ATTENTION