

# ORGANISATION AND SUBMISSION OF DATABASES IN CARICOM – A COMMON APPROACH



**FOURTH REGIONAL STATISTICAL  
RESEARCH SEMINAR**

**36th MEETING OF THE STANDING COMMITTEE OF  
CARIBBEAN STATISTICIANS (36th SCCS)**

**Belize City, Belize**

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## OVERVIEW OF PRESENTATION

- Background
- Key issues to be addressed
- Proposed Framework Concept
- Implementation / Follow-up

## 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 and structure collection/ submission process

## KEY CONSIDERATIONS

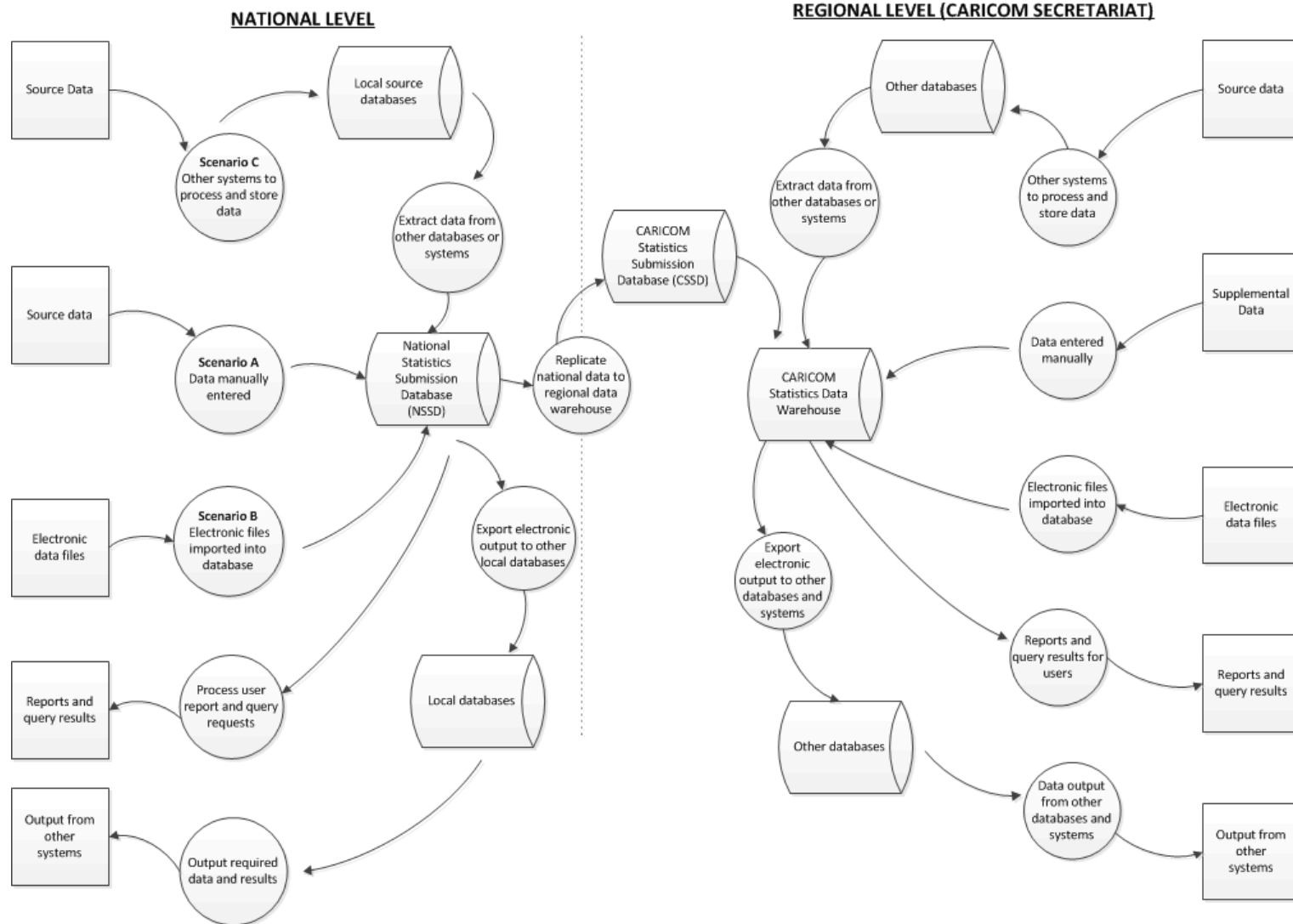
- Consistency/ standardization in the structure and properties of data to be submitted
- Minimize duplication in the collection, processing and submission of data
- Move towards consolidation of information resources – support building of “data warehouse” for future data analysis



## 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



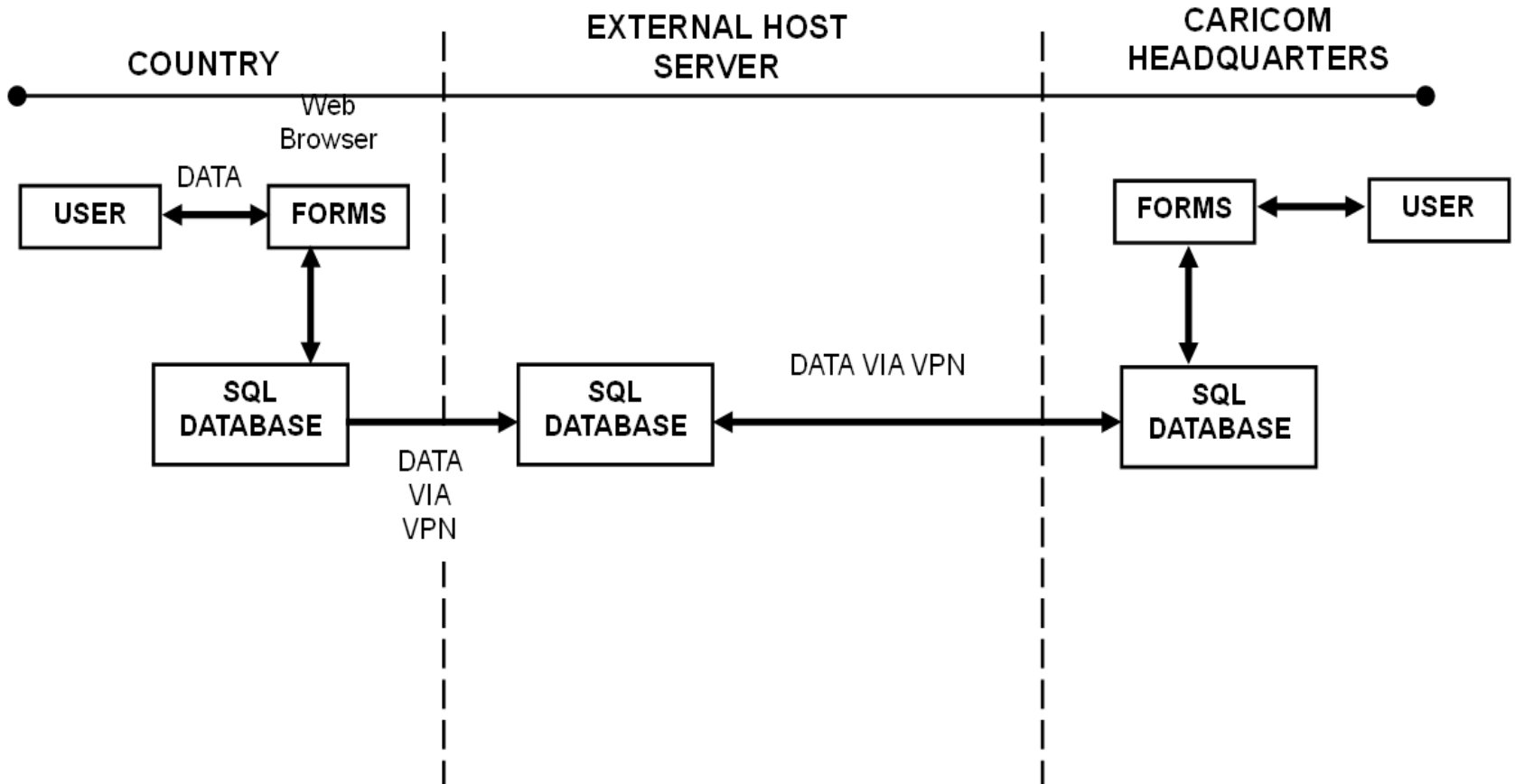


## PREREQUISITES

- 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.



THANK YOU FOR YOUR ATTENTION