SG Communications
SG-Networks
Database Development Scenarios

August 25, 2010

Face-to-Face Discussions on Database

Near-term ToDos:
1. ~~post database to SG-Network website, with use instructions~~
2. survey community for additional features and capabilities
3. specific current release needs:
   a) ~~debug the query form~~
   b) vetting of parsing routine output
   c) add full text of Actor names – **Column Added**
   d) add full text of Payload critique names - **Column Added**
   e) add in security CIA 3x3 matrix for interface control measures – **This has to come from System Requirements Spreadsheet**
   f) add in high water mark for aggregation of payload security C-I-As at interface level- **TBD**

Mid-term features:
A) Scope of Deployment/Analysis:
1. selection of options
   a) specific set of User Cases (with associated payloads, as further filtered by comm-paths selected)
   b) Communication-Path Scenarios (presentment, selection)
2. extraction of requested requirement rows
3. scaling the selected requirements to the target deployment/analysis project
   a) parsing (or changing/splitting) spreadsheet textual input volumetric fields
   b) UI input of deployment demographics (specifying the variable quantities in the "How Often" field)
   c) updating "How Often" with scaled values in selected rows for reporting/exporting
4. reporting/exporting

B) Direct input/maintenance of Content within database via e.g. form based(?) UI

Near Term Objective

- The primary objective in the near term is to ensure the accuracy and validity of the data in the tables (e.g. Use Cases, Actors, Payloads, etc.) as reflecting the most current reporting in the SRS.

- As new versions of the System Requirements spreadsheet are issued, there will be records that do not fit a template in the Record Parsing routine.

- Since Jerry Armes is the sole author of the database software to this point, it is only logical that he continue this ongoing maintenance task.

Intermediate Term Objectives

- Ron Cunningham has suggested that a User Profile capability be added. In the slides that follow, an approach is mapped out to see what that might look like

- Since this can be a stand-alone project from the work done to date, it probably should be undertaken by one or more persons with the ability to devote substantial amounts of time to it

User Interface For Expanded Tool

User Profile Management

- Add a User Profile
- Delete a User Profile
- Edit a User Profile

Queries

- Query Forms

Utilities

- Import From Excel
- Scan For Null Fields
- Mapping to Tables
- Re-Bracket
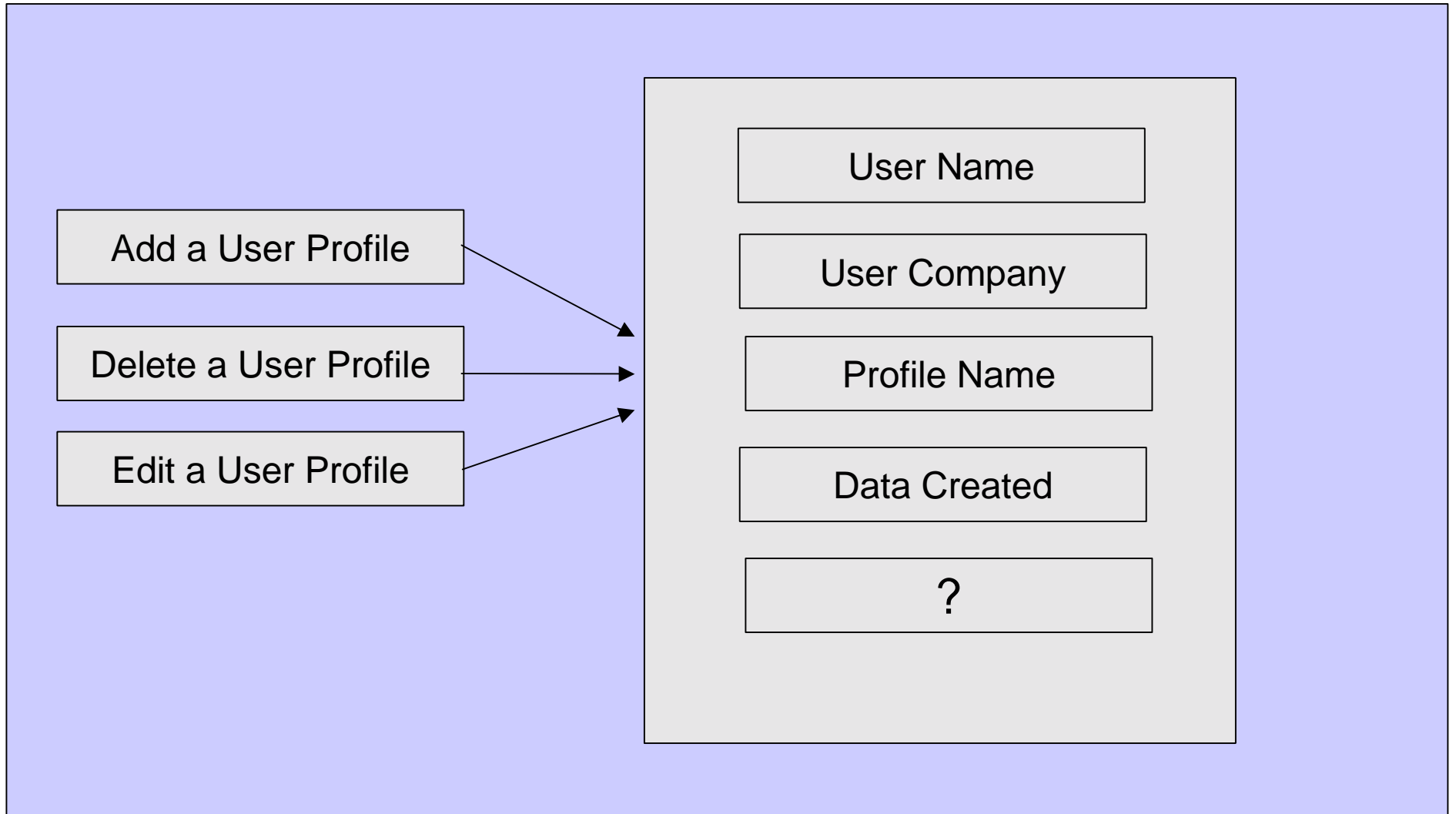- Alternate Path Parsing
- Re-Pointing Indexes

Table Management

- Use Cases
- Actors
- Domains
- Payloads
- Payload Types

User Profiles

Add a User Profile

Delete a User Profile

Edit a User Profile
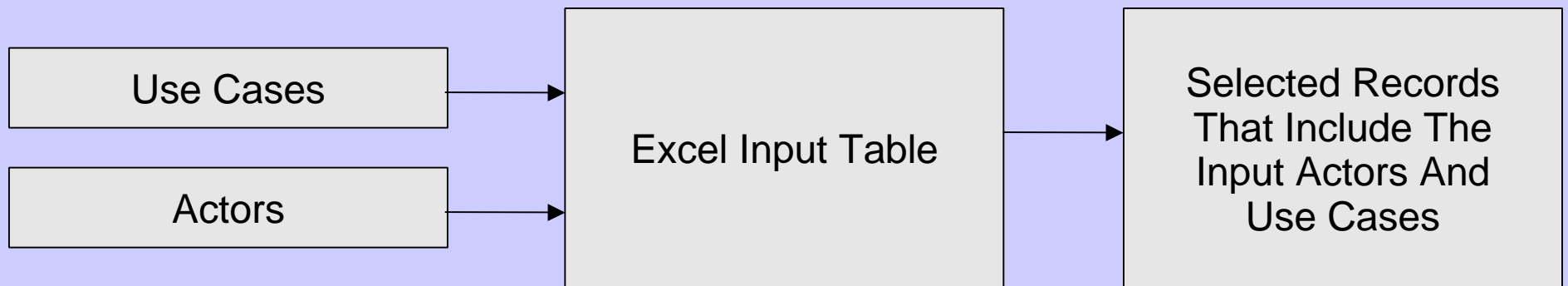
User Name

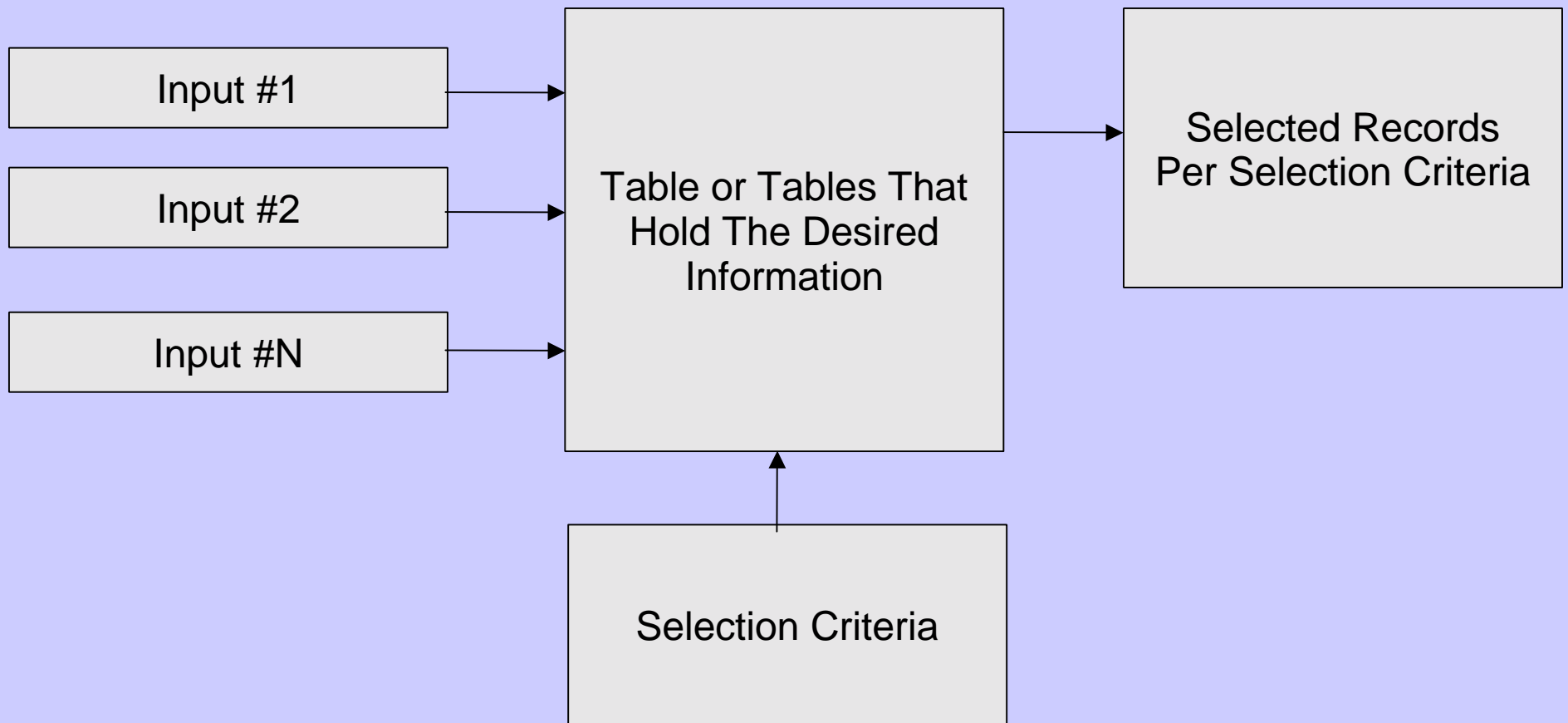User Company

Profile Name

Data Created

?

User Profiles

- To get the benefit of the User Profile approach, an object-oriented language is best

    - Forms are objects

    - User Profiles reflect unique instances of Forms with User Data in them

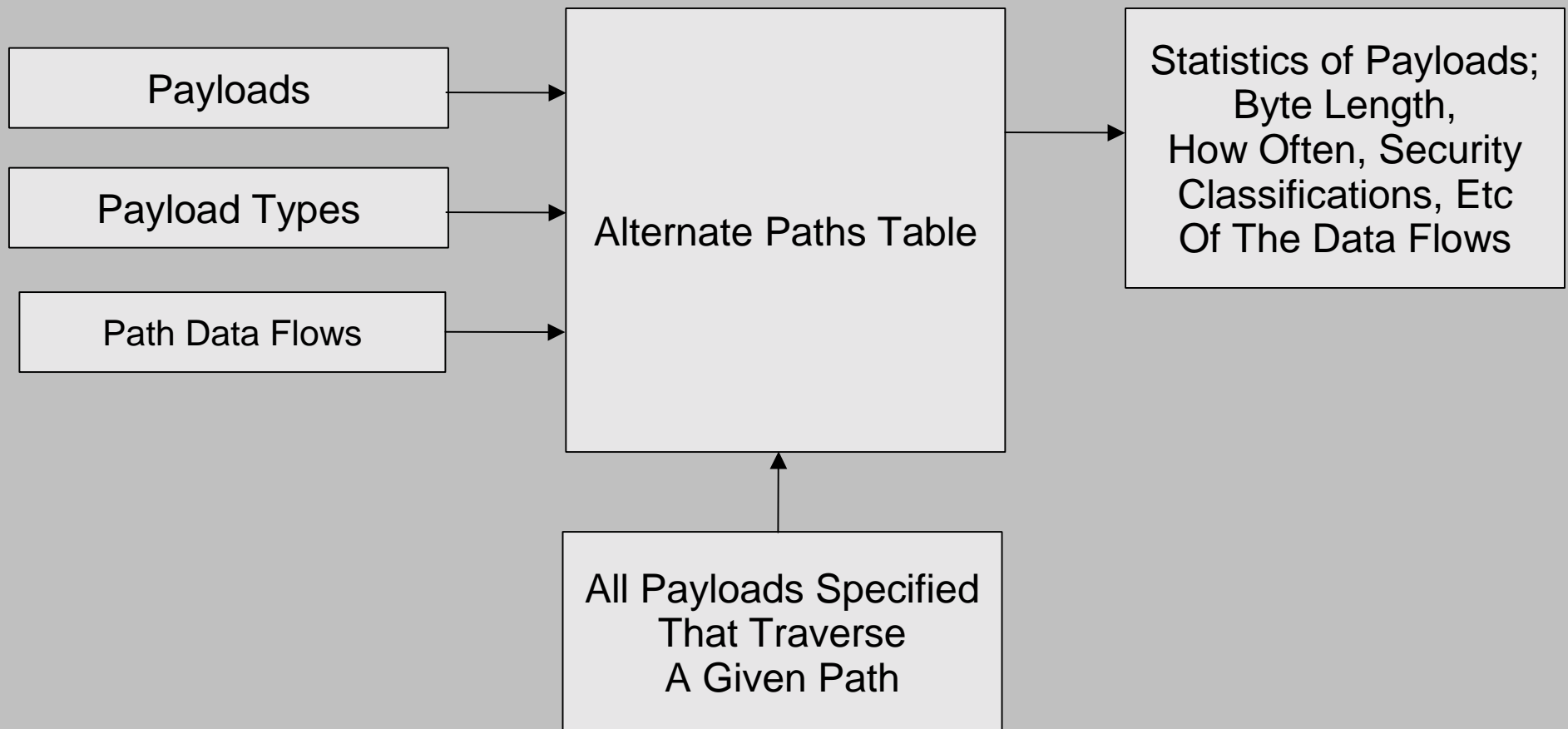   - User Profiles hold multiple instances of Forms,Queries, and Analysis Outputs

The Current Use Case/Actor Query Form

General Format of Query Forms

Example Application: Traffic On A Given Route

Payloads

Payload Types

Path Data Flows

Alternate Paths Table

Statistics of Payloads;
Byte Length,
How Often, Security
Classifications, Etc
Of The Data Flows

All Payloads Specified
That Traverse
A Given Path

Potential Application Query Forms

- Analysis of Traffic On a Given Route

- Number Payloads That Can Use a Given Route

- Identification of Routes That Support a Specified Classification Level

- ?

- ?

- ?

- ?

Longer Term Objectives

- If specific types of analysis can be identified, it will substantially help expand the tool past the near term objectives identified.

- The more specificity that can be provided for these, including the type of data required, will increase the probability of success.

- For example, if demographics are required, and there is no demographic data interfaces currently, a task will need to be established to build such an interface before the analysis using the data will ever be performed.

Summary

- This brief presentation has taken a look at the Near Term, Intermediate Term and Longer Term Objectives of the SG-Net Database & Software

- The Near Term objectives are quite clear

- Substantial discussion is needed on the Intermediate and Longer Term Objectives to achieve focus and set realistic development targets

- David Gosch suggested using the SCRUM approach to database project management, and hopefully there will be numerous volunteers to manage