

Implementing Cost-Effective Multi-Mode Data Collection Approaches in a Longitudinal Study

**Presentation at the FedCASIC Conference
Suitland, MD**

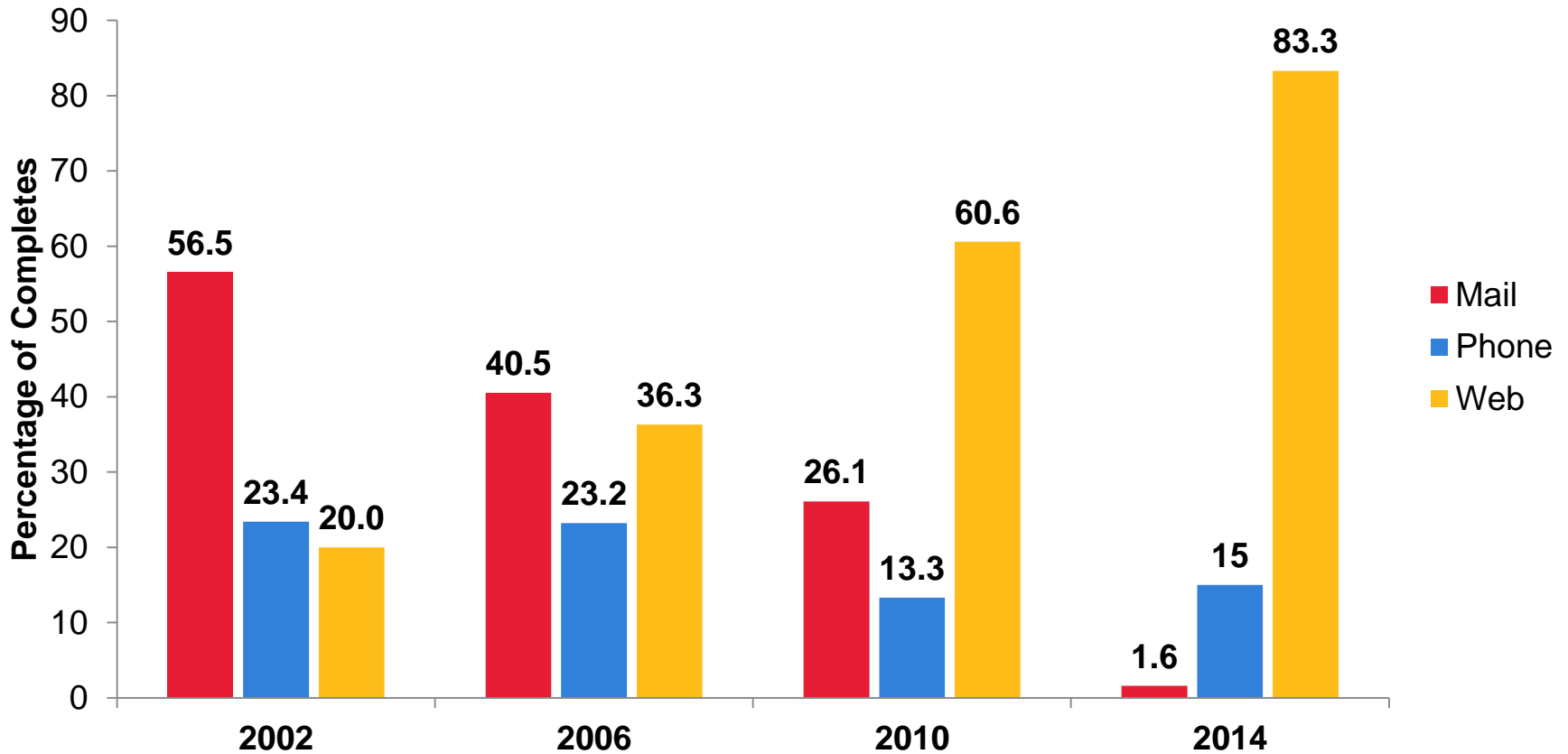
May 3, 2016

Melissa Krakowiecki • Karen CyBulski • Bharat Thakor

Longitudinal Data Collection Efforts

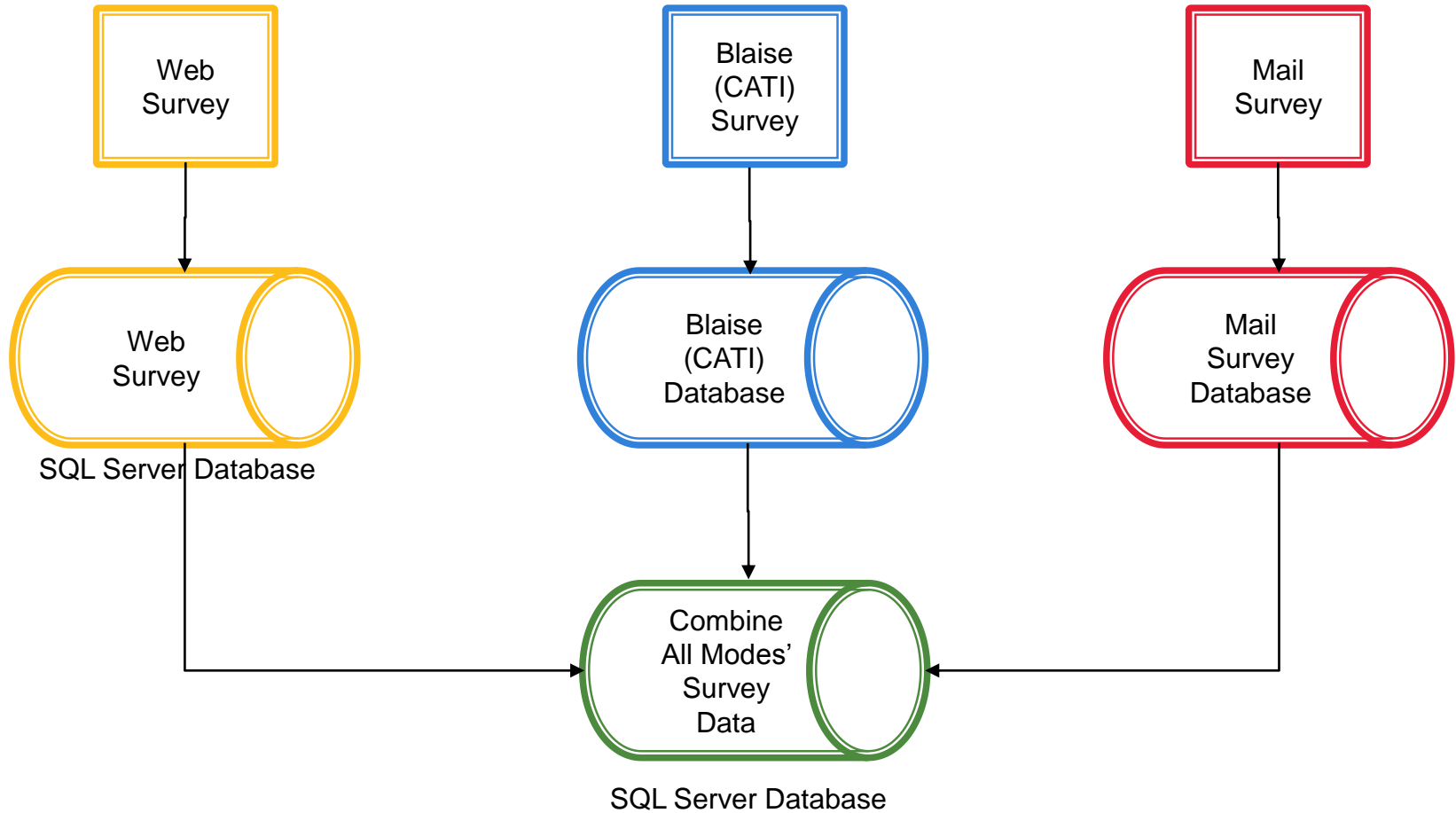
- **Mathematica has conducted an annual longitudinal survey for nearly two decades**
- **Data collection has changed over the past 15 years**
 - **Original efforts were primarily mail with telephone follow-up**
 - **Web introduced in 2001**
 - **Web introduction created a shift in choice of mode**

Response Rate Trend Over Time



Source: A national establishment multi-mode longitudinal survey.

Original Design



CATI = computer-assisted telephone interviewing.

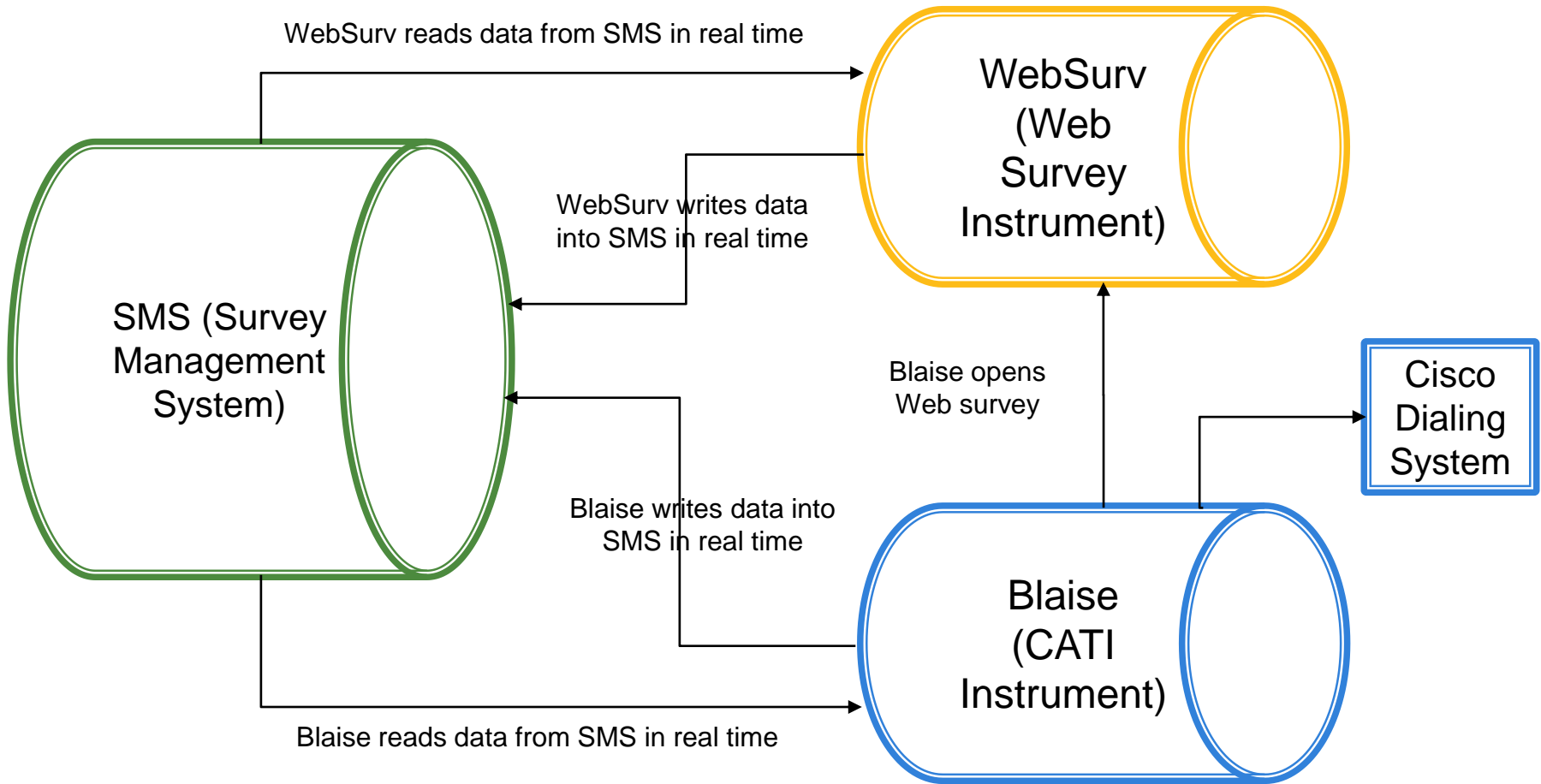
Original Design Limitations

- **Costly**
 - **Three programming efforts**
 - Changes had to be made in each mode
 - **Three testing efforts**
 - Duplicated scenarios in all three modes
- **Cumbersome**
 - **Duplicated completes**
 - **Inability to pick up where respondent left off between modes**
 - **Data synchronized with the overnight process**
- **Final File Preparation**
 - **Multiple data sources had to be combined before SAS cleaning**
 - Had to develop cross-walks for mode differences

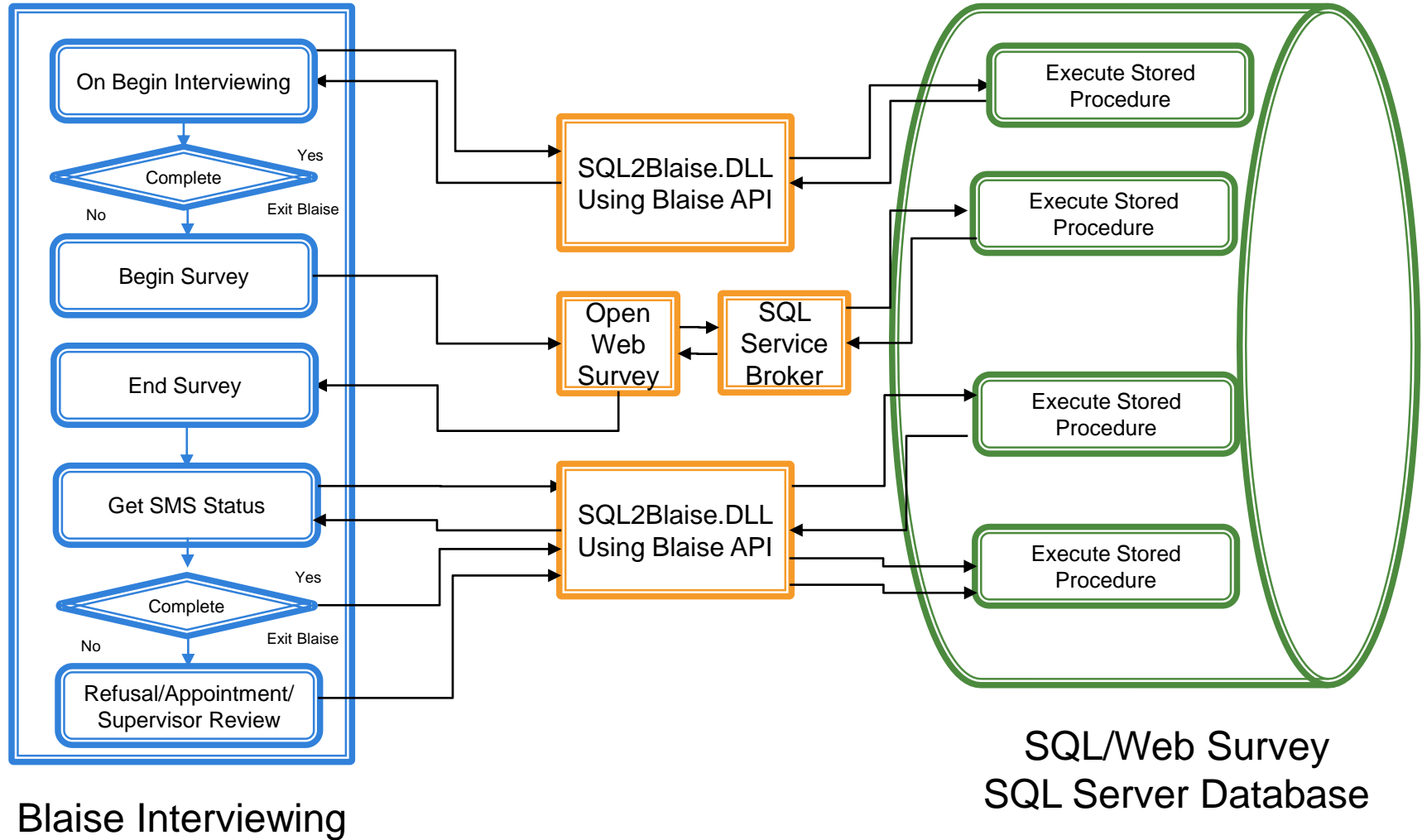
What Next?

- **Current applications were unable to give us what we wanted**
 - **Blaise Web was not a practical solution for our project**
- **Had to think outside the box to come up with a creative solution**
 - **Wanted to incorporate the best of all the modes into one data collection effort**
 - Using the call scheduler from Blaise, the flexibility of WebSurv, and the double verification efforts from data entry efforts for mail completes

New Design: Survey Instruments Overview



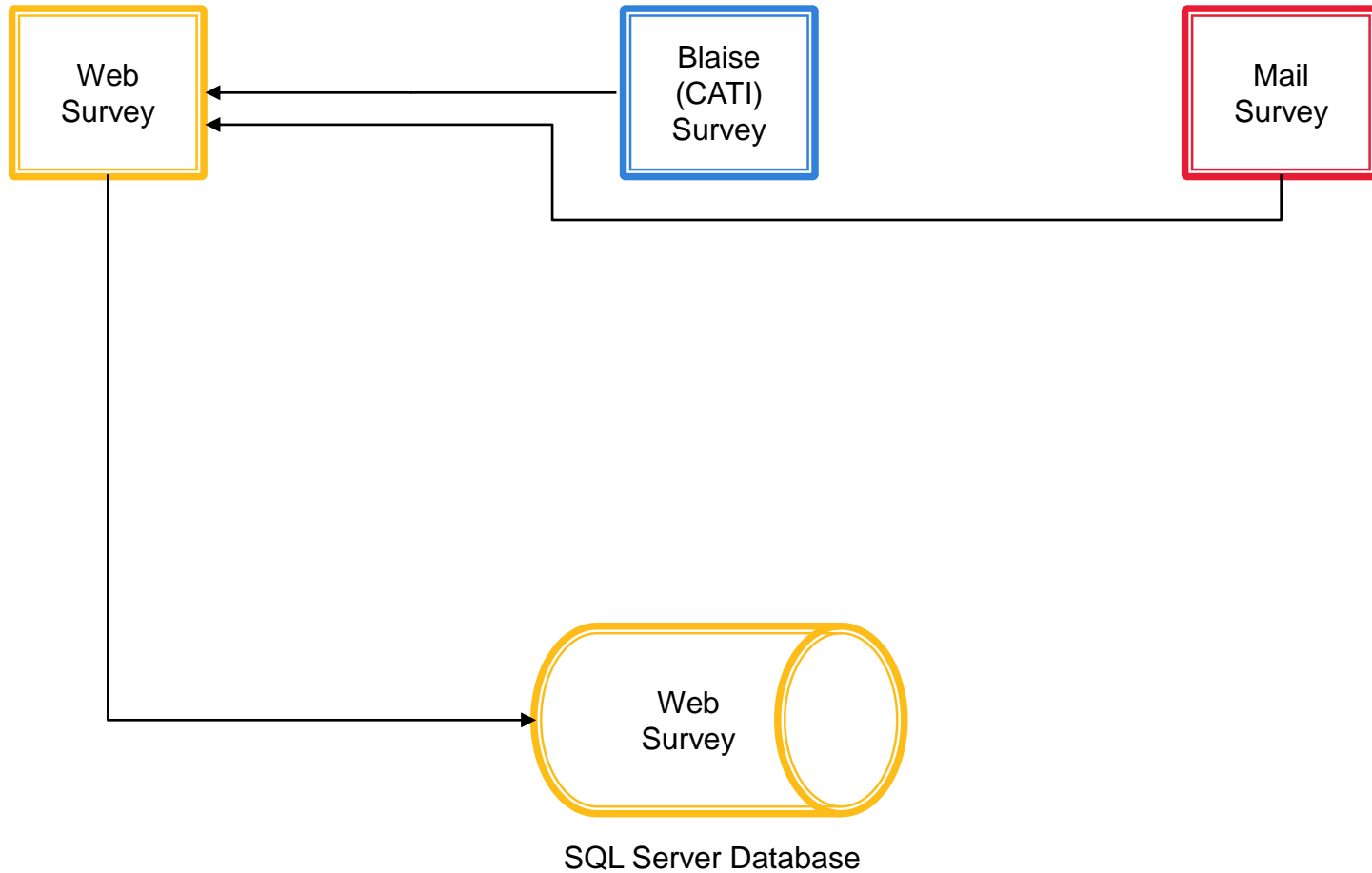
Current Design: Blaise (CATI) – Web Survey Integration



How Do We Do It?

- **Maintain two URLs**
 - **One for respondent-driven web completes**
 - **One for interviewer-driven CATI completes**
 - Unique question language can be applied to either mode
 - **Data entry is also done through the Interviewer URL for mail completes**
 - User interface (UI) within SMS allows for complete double data verification
- **Launching web through Blaise**
 - **Use Blaise's call scheduler to deliver cases**
 - **When contact is made with the respondent, web launches**
 - **After survey is complete and final statused, return to Blaise to collect interviewer's notes**

Current Design: One Database



Current Design Abilities

- **Reduction in costs**
 - **One set-up**
 - **One database**
 - **One programming effort**
 - Changes have to be made only once
 - **One testing effort**
 - Testing is streamlined into one instrument
 - **One specification maintenance**
 - Changes have to be made to only one document

- **Flexibility**
 - **Reduction in duplicated completes**
 - **Respondent's ability to pick up regardless of mode**
 - **Faster implementation**
 - **Reduce errors**
 - **Allows for more real time, centralized analysis**

Current Design Abilities

- **Real time updates**
 - **SMS updates passed to web and Blaise in real time**
 - Allows for presentation of most up-to-date information to both the respondent and the interviewers
 - **Status updates allow for interviewer-driven web cases to see a message that the case is retired and removes the case from the day batch in Blaise**
- **Final File Preparation**
 - **One specification document for data cleaning**
 - **One data source for SAS cleaning**
 - No mode differences

Conclusion

- **Streamlined process**
 - Programming happens all at once, allowing resources to focus on other aspects of data collection
- **Reduction of programming costs**
 - Removed development of Blaise and data entry program and mode-dependent cleaning specifications
- **Reduction of potential errors**
 - Changes are made to all modes at one time
- **Allows for faster delivery of final files**
 - Combined data set
 - Allows for an extension of the data collection field period if needed

For More Information

- **Melissa Krakowiecki**
 - MKrakowiecki@mathematica-mpr.com
- **Karen CyBulski**
 - KCyBulski@mathematica-mpr.com
- **Bharat Thakor**
 - BThakor@mathematica-mpr.com