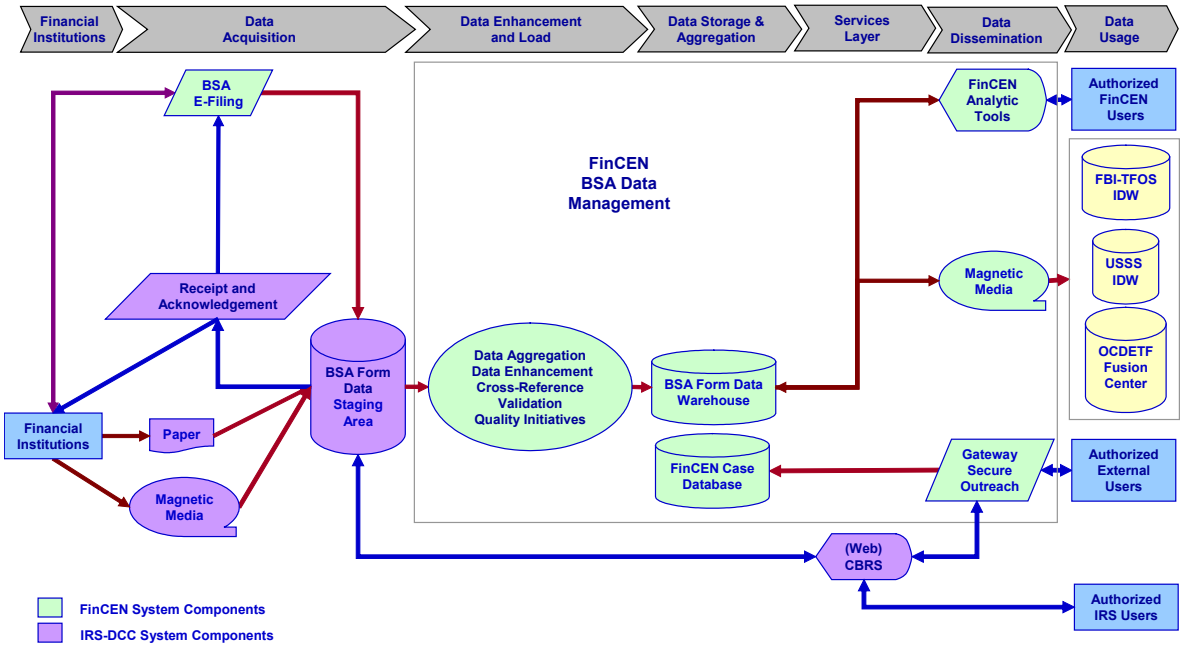
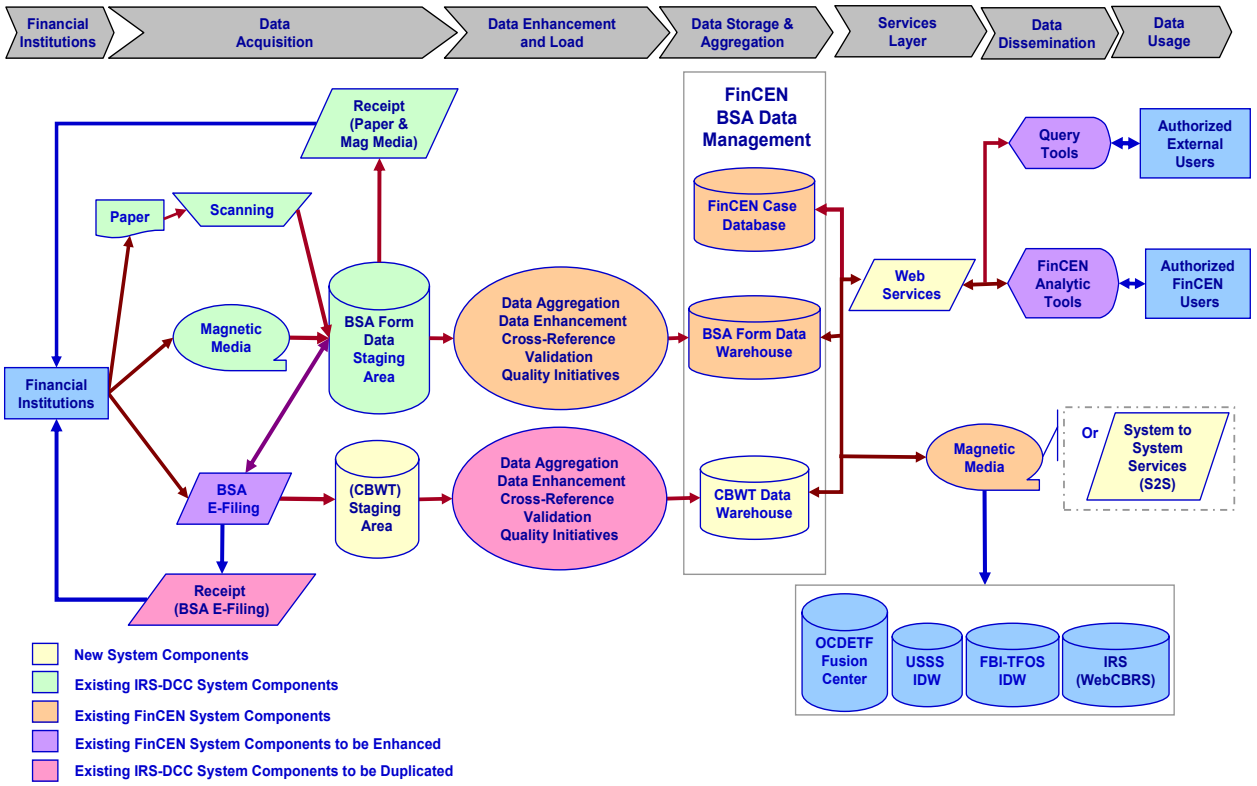
6.0 TECHNOLOGY NEEDED

6.1 Concept of Operations

A federated data warehouse architecture would provide FinCEN with the most flexible approach to integrating cross-border funds transfer data with existing, planned, and unanticipated data sources. (Appendix H contains additional discussion of the alternatives analysis conducted in support of this study). The figure below illustrates, at a very high level, the systems architecture of FinCEN's current data systems.



FinCEN recommends building a separate but integrated channel of data acquisition, processing, and storage of cross-border funds transfer data that would co-exist and integrate with the current BSA reporting. From a user's perspective, a single interface would provide access to the multiple data warehouses. The figure below illustrates, at a very high level, the system architecture we recommend for constructing such a system.



We propose to deploy a new funds transfer data warehouse and operating system in an environment separate from but integrated with existing BSA data. When fully implemented, FinCEN would have two data warehouses. FinCEN would receive the funds transfer data through the BSA E-Filing system but manage it in a separate funds transfer data warehouse environment. The funds transfer data warehouse would be separate from but tightly integrated with the existing BSA data warehouse. Thus, a dedicated system would handle management of the funds transfer reports and provide access to users through an interface that integrates the data with other BSA reports. This approach mirrors and extends the current BSA data collection process. We anticipate that the direct impact on the existing BSA data systems and BSA E-Filing will be minimal.

A federated architecture gives FinCEN the responsibility and power to plan and build smaller customized portals that satisfy the unique needs and requirements of separate user communities over time. This approach permits developers to deploy a generic portal that serves the most common user needs, and then extend the system through development of more advanced or tailored portals. In the end, this approach provides an incremental investment of money and labor, faster initial deployment, and a greater return on investment over the long term. A federated architecture reduces the time and consensus building required in the initial planning stages. In the subsequent deployment of specialized portals, user requirements analysis becomes easier because the user community consists of smaller groups with common needs, project management issues are more

manageable, the users' expectations of the systems' features are more realistic, and the users can more readily recognize clear, tangible benefits of the system.

BSA E-Filing currently is capable of handling large batch filing of BSA reports. FinCEN must enhance the hardware used for the BSA E-Filing system and then increase the dedicated telecommunications bandwidth of the system to accommodate the batch sizes required to submit funds transfer data. The submission of funds transfer data also requires very strict security arrangements. The current digital certificate process built into BSA E-Filing most likely will provide much of the security infrastructure required for transmitting batches of funds transfer data. FinCEN must also carefully reevaluate the current process for obtaining digital certificates to ensure that it does not hinder the increased usage of BSA E-Filing.

The modifications to the BSA E-Filing system necessary in order to accommodate the batch submission of funds transfer include:

- **Separate Submissions for Funds Transfer Reports:** Forms and other functionality to accommodate the separate work stream of funds transfer submissions.
- **Administrative Database Tracking:** FinCEN must modify the Oracle database used by BSA E-Filing for administrative tracking to track the submission of funds transfer batches. Similarly, administrative tracking functions must be adapted so that financial institutions could view a history of the funds transfer batches submitted to FinCEN.
- **Acceptance and Validation of Funds Transfer Batches:** The BSA E-Filing system must incorporate new business rules and procedures to accept batches of funds transfers in an entirely different format.

FinCEN must implement data transformation processes capable of mapping the elements of any such acceptable report formats into a single unified format for storage in its data warehouse. Providing multiple options to institutions with regard to the form of their reports would afford the maximum flexibility to institutions in implementing their own compliance processes. Institutions would be free to make whatever business decisions were appropriate within the limits established in the regulation.

6.2 Rough Order of Magnitude Cost Estimates

Significantly, we conclude that it is not feasible to implement such a system by the December 2007 deadline set out in Section 6302 of the Intelligence Reform Act. Based on a preliminary work breakdown schedule outlining the necessary steps in development, we conclude that deployment of the system described above would require approximately three and one-half years of labor and an

investment of approximately $32.6 million over that time.[23] (Appendix K contains a more detailed breakdown of the cost estimates).

	Acquisition	Phase One	Phase Two	Sub-Totals
Hardware		$1,630,392	$1,324,397	**$2,954,789**
Software		$3,175,015	$1,227,898	**$4,402,913**
Maintenance Cost		$690,369	$767,905	**$1,458,274**
Contract Service & Support	$770,000	$6,274,797	$14,712,392	**$21,757,189**
Other	$347,710	$754,110	$933,660	**$2,035,480**
Total	**$1,117,710**	**$12,524,683**	**$18,966,252**	**$32,608,645**

23 Note that this figure represents a rough order of magnitude cost estimate and could be revised significantly based upon the results of the proposed pre-acquisition phase and user requirements analysis.