



Case Study

Data Masking

“The EDGE Team came into our environment knowledgeable and ready to perform. They understood the challenges we had and they delivered a solution with no disruption to the day-to-day business that had to keep going. In addition, they helped us overcome a huge obstacle in our ability to maintain integrity across all applications. That was a priceless deliverable that, if absent, would have resulted in an otherwise unsuccessful project.”

- Client Bank PMO

Client

Based in the Southeast, the client bank holds assets of more than \$30 billion and is ranked among the top 40 banks in the United States.

Situation

The growth and security of a bank is tied directly to its data security. With the increasing sophistication and number of threats to data security (both internal and external) a bank's ability to protect data must be ahead of the trends, tested continually, and free of complications.

Like most financial institutions, our client's Customer Sensitive Information (CSI) was highly secured in their production environment. However, security measures in the test environment were more relaxed. Due to federal requirements, their corporate parent mandated secure CSI in the test environment via a data masking process.

Challenge

The client bank called upon EDGE to assist in developing an approach to protect CSI in the test environment while handling the following issues:

- Client resources were allocated to other strategic projects
- Major development activity was heavy
- Integration of an acquired bank was in process
- Difficulty in obtaining funding for a project that contributed no monetary benefits

Approach

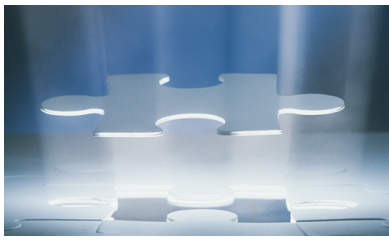
EDGE delivered an approach to data masking that enabled our client to successfully lock down production data, while allowing for full-daily testing and development activities.

CSI was masked or manipulated from the production environment and transmitted to the testing environment. All files and reports were quality checked by independent business analysts at each phase of testing to ensure that CSI was captured, masked and consistent from application to application.

The approach included EDGE focusing on minimal disruption in the regular activities of the client bank IT resources. Subject matter experts were used in an advisory capacity, allowing them to continue with their daily activities, with little disruption. In addition, EDGE worked with the client to layout a schedule to split the cost of the project over two fiscal years, to assist with funding.

The data masking project involved review and analysis of over 120 applications (HOST and Client Server). Of these, 79 were determined to contain data requiring masking. The project involved all the phases of a major IT project – project management, analysis, development, QA, implementation, documentation, training and turnover. EDGE provided key resources for each phase.





Case Study: Data Masking

“Date and behavioral factors must be considered in a data masking effort. Using a vendor with experience (like EDGE) can help to overcome these factors before they become obstacles.”

- Client Bank PMO

Result

EDGE provided client with a well documented process and tools to mask CSI from production files while it was being migrated to the test environment.

In addition, EDGE consultants identified and eliminated duplication from the client’s black box algorithm, which resulted in the client’s ability to maintain a cohesive test specification for all projects.

Benefits Realized

At the end of the project, the bank had realized the following:

- Compliance with federal requirements on removing sensitive client data from the test environments.
- Established a process to create masked data from production files and push the data over to the test environment, without the data being touched by a development resource.
- Development of consistent data masking across applications, allowing for full bank testing.
- Continuity and lack of interruption to client bank projects.
- Enhancement of application knowledge, through the analysis process.
- Gained experience and documented lessons learned to assist in future data masking requirements, as new applications and files are installed.
- Eliminated the need for the development of an automated test deck.

Client Perspective

“Our group was provided the challenge from corporate to mask all of our production data. This process had never been attempted before. EDGE was brought in to use the process established by the corporate office. However, EDGE was able to determine that the process was flawed and developed a solid turnkey process which maintained data integrity across all applications. The key, to finding this flaw and the development of the new process, was the tremendous banking experience that EDGE consultants brought to the table. Had it not been for EDGE and their extensive financial services knowledge, the process would have remained flawed and our mandate from corporate would not have been fulfilled.”

- Client Bank PMO

Advice

The experience gained from a data masking project is of great benefit. Some things learned from this project:

- Not all data can be masked. To maintain consistency some fields should not be masked, but must be re-built from the masking of another field. Keys (that include client data) to read direct files can result in inconsistent results if not masked properly. Packed decimal or binary fields can result in different results from the masking of the same data in a character format.
- A process to push masked files and non-masked files from production to the test environment should be considered. The benefit is the elimination of manual processes.
- Masked data is downright ugly. Anyone accustomed to using live client data will resist the use of masked data. And, any minor flaw in the delivered process can become an excuse to delay the use of masked data.

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