**Change 1: Requirement – Match 14-Byte Local TSTAMP**

Issue: The current logic uses a PAN prefix/suffix and a 3-day span to perform a “between” lookup in the system. This is inefficient for matching timestamps.

Proposed Solution: Update the logic to directly match the 14-byte local timestamp (TSTAMP\_LOCAL) rather than performing a range-based lookup. The system currently only handles 8-byte timestamps in DM5 file processing. This change will require the system to handle 14-byte timestamps.

Estimated Effort: 60 hours.

Impact: This change will significantly reduce the DM5 file processing time by avoiding the need to scan through millions of records to create a case. By implementing direct timestamp matching, the overall performance will improve for better case matching accuracy.

**Change 2: Enhancement – Introduce Index on ARN (Acquirer Reference Number)**

Issue: The system currently does not have an index on ARN, which can slow down certain database operations.

Proposed Solution: Introduce a new index on the ARN, which would involve a Data Definition Language (DDL) change. DBAs need to assess if there is enough space to create the index. Code changes are required to ensure ARN data is populated in the fin locator tables, as it is currently only present in the EMS table and not in the financial table.

Estimated Effort: 80 hours, including database synchronization.

Impact: This change will enhance the long-term performance and sustainability of the system by allowing faster lookups and database operations using the ARN. With better indexing, the system will process requests more efficiently, improving overall output.

Combined Impact: Implementing both changes will not only improve the processing time for DM5 files but also enhance system performance in the long term, making it more sustainable and responsive.

**Manuals and Documentation:**

Note: As these changes affect the processing logic and database structure, relevant manuals or internal documentation should be reviewed and updated, if necessary, to reflect the new timestamp matching logic and the introduction of the ARN index. This ensures that any future users or developers understand the modified system behavior.

**Next Steps:**

1. Implement Change 1 to improve DM5 file processing efficiency.

2. Proceed with Change 2 to introduce the ARN index and ensure database synchronization.

3. Coordinate with DBAs to verify space for the new index.

4. Identify and update any relevant manuals that require changes to reflect the new logic and database enhancements.