LNP Problem/Issue Identification and Description Form

**Submittal Date** (mm/dd/yyyy): 03/12/2018

**Company(s) Submitting Issue**: iconectiv

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**(NOTE: Submitting Company(s) is to complete this section of the form along with Sections 1, 2 and 3.)**

1. **Problem/Issue Statement:** (Brief statement outlining the problem/issue.)

In a typical Software Development process, requirements are explicitly defined and numbered so that such requirements can be developed and fully tested and the traceability to verify that every requirement has been appropriately developed and tested can be tracked. Some NPAC SMS requirements are implicit in that the explicit behavior of the NPAC SMS needs to be inferred from narratives defined in non-FRS NPAC SMS documents, such as in error code descriptions in interface specifications. This can lead to requirement needs not fully being understood and implementation having differences.

1. **Problem/Issue Description:** (Provide detailed description of problem/issue.)
2. Examples & Impacts of Problem/Issue: When an Activation Broadcast is sent to LSMSs and an LSMS responds with a “duplicate managed object” or “object already exists” error, the iconectiv NPAC will put the LSMS on the failed SP list and set the SV or Block to a partial failure status when rollup occurs, based on current FRS and IIS requirements, i.e., there is no explicit requirements for NPAC SMS to consider this behavior a “success” reply in any CMIP related documentation. In the XML interface specification in an error code and error handling section, there is a description that identifies that the NPAC SMS should treat this situation as a success reply from the LSMS. Although this would have no immediate impact on customer service (the SV is in the LSMS/network), a subsequent modify of this SV would fail or could not occur until the LSMS is removed from the failed list (a resend would detect the same error, but an audit or resend exclusion would remove the LSMS from the failed SP list).
3. When a Disconnect Broadcast is sent to LSMSs and an LSMS responds with a “no such object” or “object not found” error, the iconectiv NPAC will put the LSMS on the failed SP list and set the SV or Block to an old status when rollup occurs. This situation is similar to Example A above in terms of documentation. Although this would have no impact on customer service (the SV does not exist in the LSMS/network), a manual intervention would be required to remove the LSMS from the failed SP list (a resend would detect the same error, but an audit or resend exclusion would remove the LSMS from the failed SP list).
4. XML interface messages contain both a departure timestamp (when the message left the sending system) and an origination timestamp (when the message was created (as opposed to delivered) in the sending system). The definition of the origination timestamp in the XML Interface Specification has a sentence indicating “This should never be later than the departure timestamp”, but no explicit requirement to reject such a message in the FRS nor XIS (e.g, not explicit mention in Table 2 concerning synch ack errors).

B. Frequency of Occurrence:  
Whenever a Local System interacts with the NPAC SMS that may be missing functionality for certain scenarios associated with “implicit” requirements. For the examples cited above, whenever an LSMS responds that it already has an SV/Block (with the same SV/Block ID) that is being activated or resent or an LSMS responds that it does not have an SV/Block that is being disconnected. Whenever a SOA/LSMS sends a message with a origination timestamp later than the departure timestamp.

1. NPAC Regions Impacted:

Mid Atlantic \_\_\_ Midwest\_\_\_ Northeast\_\_\_ Southeast\_\_\_ Southwest\_\_\_ Western\_\_\_

West Coast\_\_\_ ALL US regions\_X\_\_

D. Rationale why existing process is deficient:   
Implicit requirements are not readily identified and can lead to missing functionality/capabilities in the development and delivery of software.

E. Identify action taken in other committees / forums: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

F. Any other descriptive items:

As identified in: [Requirements Management Using IBM® Rational® RequisitePro®](http://www.informit.com/articles/article.aspx?p=1152528) (<http://www.informit.com/articles/article.aspx?p=1152528&seqNum=4>), characteristics of a good requirement includes the requirement is: unambiguous, testable (verifiable), clear, correct, understandable, feasible, independent, atomic, necessary and implementation-free).   
  
Often, requirements coverage matrices are used in the software development process to help identify and test requirements of the solution as identified in a Sigma Software article (<https://sigma.software/about/media/using-requirements-coverage-matrices>), and includes: Requirement Number (unique identifier for each requirements), Link to source of requirement, Statement of the requirement, Link to test cases (where the requirement is covered with test cases).

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1. **Suggested Resolution:**

If it is determined that this is an issue to be worked, a change order for future implementation should be worked that explicitly defines and implements the implicit requirements defined here.

1. **Final Resolution:**

This issue resulted in the creation and acceptance of a NANC Change Order. For further detail refer to the NANC Change Order(s) identified in the Related Documents field below.

**LNPA WG:** (only) Final Resolution Date : 10/28/18

Item Number: PIM 110 Related Documents: NANC 523

Issue Resolution Referred to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why Issue Referred: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_