TP Design Process Improvement

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Addressing the flaws in the current design process, this proposal allows a single point of design for TPs and enables a single flow. Once the TP model is defined, the automated build and test process should run with no manual intervention.

# Current Scenario

The current TP design process is initiated by feeding two versions of a node model through the MOM Tool. The MOM Tool will produce a delta document that is then taken by a designer and applied to the existing TP model. Manual modifications are made to some TPs currently delivered in ENIQ-S but the way these modifications are designed requires the TP to be created first. This creates a potentially endless loop where designers create and test the TP to discover if modifications are needed and/or working as expected.

# Proposed Approach

Once MOM Tool produces the output today, a series of decisions are made on the delta document to define what actions need to be taken to upgrade the TP. A substantial amount of the items in the delta document could be automated to be added to the TP with no manual intervention.

Adapting the functionality currently in MOM Tool and the model available in TP AF, it would be possible to generate a more accurate delta document. Using the latest node model and the existing TP model, the delta would describe the difference between the latest node and our existing solution as opposed to the previous node model. Applying a set of rules to the delta should then filter out differences that can be applied automatically. The remaining difference in the delta document would be the actions that a human decision is required for.

This solution would render TP design to a series of decision points which could be made easily and quickly. All interaction with TPs could be controlled from a single point offering the potential to highlight risks at the earliest stage.

# Advantages

1. A single design point for TPs as opposed to multiple tools for difference stages
2. Production of a single model to describe a TP
3. Fully automatable design and test flow with no manual intervention required.

# Disadvantages

1. Assumption that existing manual modifications can be predicted in advance or can be described without the need for the iterative loop
   1. Substantial analysis required to determine if this is feasible.
2. Requires a comprehensive user interface to present the various details to the designer and highlight the areas or concern and that require attention.