

## 8.3 Assess Solution Limitations

### 8.3.1 Purpose

The purpose of Assess Solution Limitations is to determine the factors internal to the solution that restrict the full realization of value.

### 8.3.2 Description

Assessing solution limitations identifies the root causes for under-performing and ineffective solutions and solution components.

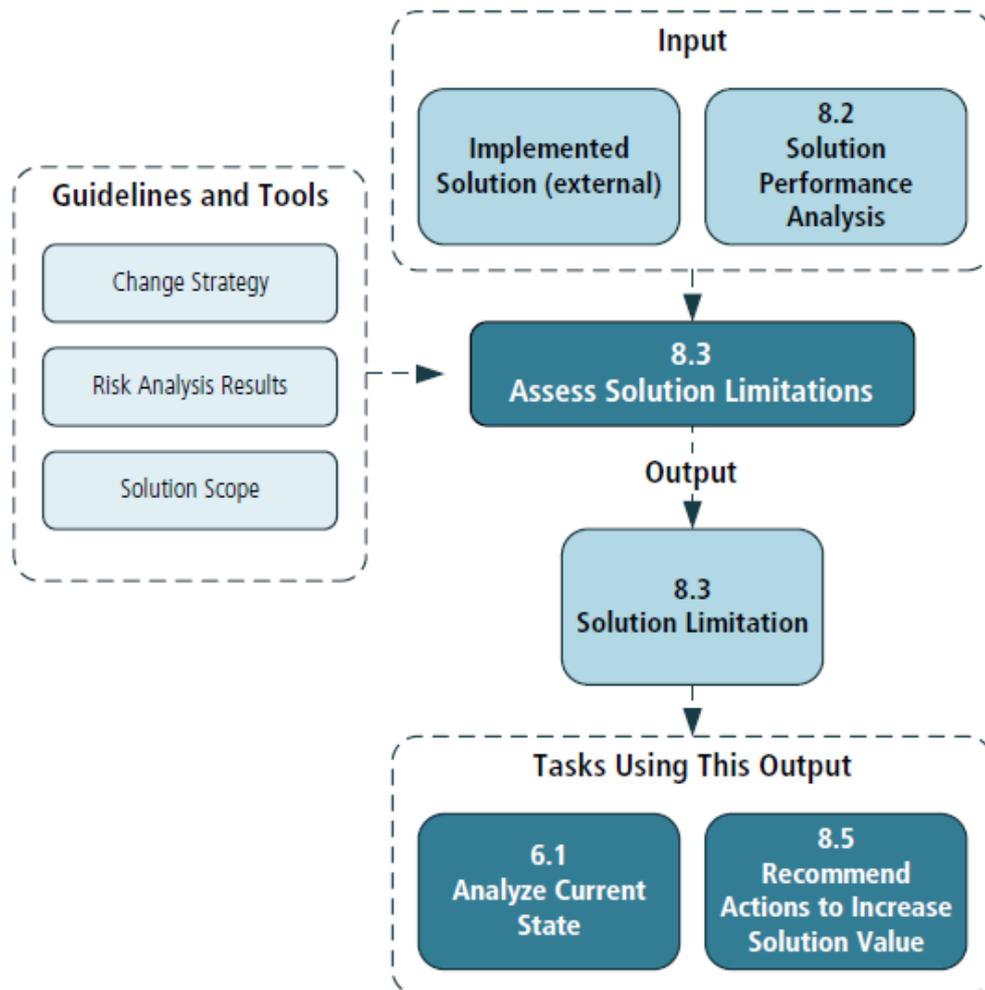
Assess Solution Limitations is closely linked to the task Assess Enterprise Limitations (p. 177). These tasks may be performed concurrently. If the solution has not met its potential value, business analysts determine which factors, both internal and external to the solution, are limiting value. This task focuses on the assessment of those factors internal to the solution.

This assessment may be performed at any point during the solution life cycle. It may occur on a solution component during its development, on a completed solution prior to full implementation, or on an existing solution that is currently working within an organization. Regardless of the timing, the assessment activities are similar and involve the same considerations.

### 8.3.3 Inputs

- **Implemented Solution (external):** a solution that exists. The solution may or may not be in operational use; it may be a prototype. The solution must be in use in some form in order to be evaluated.
- **Solution Performance Analysis:** results of the analysis of measurements collected and recommendations to solve for performance gaps and leverage opportunities to improve value.

Figure 8.3.1: Assess Solution Limitations Input/Output Diagram



### 8.3.4 Elements

#### .1 Identify Internal Solution Component Dependencies

Solutions often have internal dependencies that limit the performance of the entire solution to the performance of the least effective component. Assessment of the overall performance of the solution or its components is performed in the tasks Measure Solution Performance (p. 166) and Analyze Performance Measures (p. 170).

Business analysts identify solution components which have dependencies on other solution components, and then determine if there is anything about those dependencies or other components that limit solution performance and value realization.

#### .2 Investigate Solution Problems

When it is determined that the solution is consistently or repeatedly producing ineffective outputs, problem analysis is performed in order to identify the source of the problem.

Business analysts identify problems in a solution or solution component by examining instances where the outputs from the solution are below an

acceptable level of quality or where the potential value is not being realized. Problems may be indicated by an inability to meet a stated goal, objective, or requirement, or may be a failure to realize a benefit that was projected during the tasks Define Change Strategy (p. 124) or Recommend Actions to Increase Solution Value (p. 182).

### .3 Impact Assessment

Business analysts review identified problems in order to assess the effect they may have on the operation of the organization or the ability of the solution to deliver its potential value. This requires determining the severity of the problem, the probability of the re-occurrence of the problem, the impact on the business operations, and the capacity of the business to absorb the impact. Business analysts identify which problems must be resolved, which can be mitigated through other activities or approaches, and which can be accepted. Other activities or approaches may include additional quality control measures, new or adjusted business processes, or additional support for exceptions to the desired outcome.

In addition to identified problems, business analysts assess risks to the solution and potential limitations of the solution. This risk assessment is specific to the solution and its limitations.

### 8.3.5 Guidelines and Tools

- **Change Strategy:** the change strategy used or in use to implement the potential value.
- **Risks Analysis Results:** the overall level of risk and the planned approach to modifying the individual risks.
- **Solution Scope:** the solution boundaries to measure and evaluate.

### 8.3.6 Techniques

- **Acceptance and Evaluation Criteria:** used both to indicate the level at which acceptance criteria are met or anticipated to be met by the solution and to identify any criteria that are not met by the solution.
- **Benchmarking and Market Analysis:** used to assess if other organizations are experiencing the same solution challenges and, if possible, determine how they are addressing it.
- **Business Rules Analysis:** used to illustrate the current business rules and the changes required to achieve the potential value of the change.
- **Data Mining:** used to identify factors constraining performance of the solution.
- **Decision Analysis:** used to illustrate the current business decisions and the changes required to achieve the potential value of the change.
- **Interviews:** used to help perform problem analysis.
- **Item Tracking:** used to record and manage stakeholder issues related to why the solution is not meeting the potential value.
- **Lessons Learned:** used to determine what can be learned from the inception, definition, and construction of the solution to have potentially impacted its ability to deliver value.

- **Risk Analysis and Management:** used to identify, analyze, and manage risks, as they relate to the solution and its potential limitations, that may impede the realization of potential value.
- **Root Cause Analysis:** used to identify and understand the combination of factors and their underlying causes that led to the solution being unable to deliver its potential value.
- **Survey or Questionnaire:** used to help perform problem analysis.

### 8.3.7 Stakeholders

- **Customer:** is ultimately affected by a solution, and therefore has an important perspective on its value. A customer may be consulted to provide reviews and feedback.
- **Domain Subject Matter Expert:** provides input into how the solution should perform and identifies potential limitations to value realization.
- **End User:** uses the solution, or is a component of the solution, and therefore contributes to the actual value realized by the solution in terms of solution performance. An end user may be consulted to provide reviews and feedback on areas such as workload and job satisfaction.
- **Regulator:** a person whose organization needs to be consulted about the planned and potential value of a solution, as that organization may constrain the solution, the degree to which actual value is realized, or when actual value is realized.
- **Sponsor:** responsible for approving the potential value of the solution, for providing resources to develop, implement and support the solution, and for directing enterprise resources to use the solution. The sponsor is also responsible for approving a change to potential value.
- **Tester:** responsible for identifying solution problems during construction and implementation; not often used in assessing an existing solution outside of a change.

### 8.3.8 Outputs

- **Solution Limitation:** a description of the current limitations of the solution including constraints and defects.