

APPENDIX F. USE OF EXTERNAL DATA IN A SYSTEM EVALUATION

The System Evaluator may consider external data sources (e.g., vendor testing, third party testing, data captured through international operations) for use in a system evaluation to reduce future testing performed by the Operational Test Agent (OTA), help validate, and/or add additional confidence to OTA test results. If accepted by the OTA, these data generally reduce the level of testing performed during Qualification Testing (QT) at the Transportation Security Administration (TSA) Integration Facility (TSIF) by allowing QT to serve as a validating function rather than a primary test source. The OTA performs an assessment of vendor-provided information during the qualification process to determine eligibility for data acceptance.

The OTA's decision to accept a data source to compliment or possibly reduce the OTA's level of testing is separate from the Program Management Office (PMO) decision on whether to accept a vendor into the TSA acquisition process. The OTA's review of vendor-provided test plans and data occurs during the review of the Qualification Verification Package (QVP) and Qualification Data Package (QDP), respectively, as illustrated in Figure 3-2.

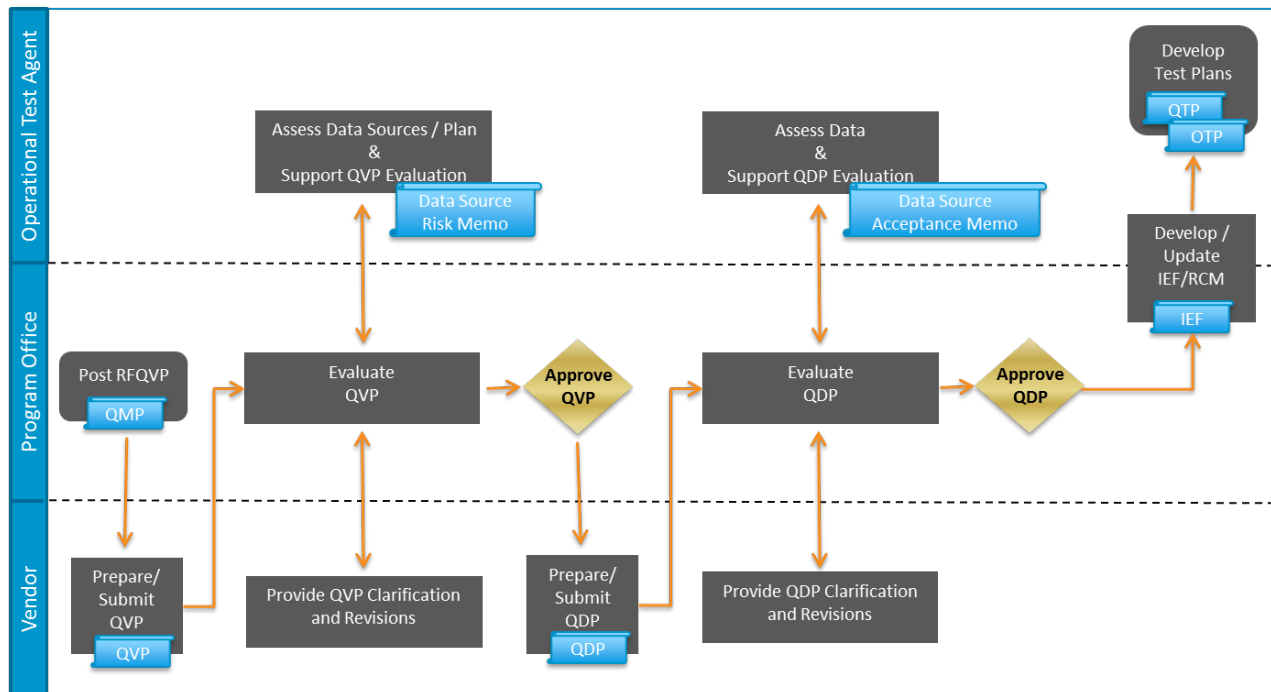


Figure F-1: OTA Data Source Review during the Qualification Process

Qualification Verification Package Review

Upon delivery of a vendor-developed QVP, the System Evaluator utilizes the *Data Source Acceptance Worksheet* and performs an assessment of each vendor-proposed data source in the QVP. During this assessment, the OTA may request clarification from the vendor, via the PMO, on one or more items required to make a determination. The System Evaluator performs the following activities during this assessment:

- Identifies the external data sources in the QVP, the criteria for assessing the overall risk of each data source, and the relative weight of each criterion by degree of importance. These criteria can include items such as evidence of process maturity, knowledgeable staff, representative operating conditions, relevance of data (e.g., volume of data, spread across sites, machines, conditions, time, etc.), appropriate facilities, appropriate test tools, appropriate test articles, sufficient and appropriate infrastructure.
- Reviews the QVP and scores each external data source against the identified criteria. The System Evaluator should apply a score of 10 for any criterion that are fully met and where the information provided demonstrates advanced capability/maturity, a 5 when a criterion is partially met and demonstrates adequate performance/capability, or a 1 for any criterion not met and where the information provided demonstrates inadequate capability/maturity. The scoring produces an overall risk score for each data source and an associated Low, Medium, or High rating.
- Reviews the test methodology for each requirement and determines whether low or medium risk data source submissions are adequate for verifying requirements. High risk data sources are ineligible to be used for system evaluation purposes.
- Documents a *QVP Data Source Acceptance Memorandum* that provides the risk rating and establishes what data sources may be used to verify or validate specific requirements as part of an acquisition system evaluation. The OTA provides this memorandum to the PMO for informational purposes.

In addition to the above QVP data source assessment, the OTA supports the PMO in the review of any Test and Evaluation (T&E) planning, configuration management, or other technical areas as requested in support of the PMO's decision whether to allow the system to enter the TSA acquisition process. For more information, see the PMO *Qualification Overview* document.

Qualification Data Package Review

Upon PMO QVP acceptance and vendor submission of a QDP, the OTA reviews and evaluates the vendor-provided test data from approved data sources. The OTA performs the following activities:

- Reviews the QDP for deviations from the previously submitted QVP, configuration management discrepancies (e.g., testing performed on a non-representative configuration), and any other significant non-compliances that could invalidate the data provided.
- Reviews the data for each requirement and determines whether the data provided adequately assess the requirement and demonstrate successful system performance/functionality.
- Documents a *QDP Data Source Acceptance Memorandum* that provides the data source risk rating, the requirements with adequate data (if any), and final OTA determination on whether any of the data can be used in support of the system evaluation. The memorandum includes a disclaimer stating the OTA reserves the right to change its determination if deviations, limitations, or inconsistencies become known after the initial acceptance.

The OTA provides the *QDP Data Source Acceptance Memorandum* to the PMO as an input to the development of the test strategy. The PMO and OTA will document how any accepted data will be used in the System Evaluation in subsequent T&E planning documentation (e.g., Test and Evaluation Master Plan [TEMP], Integrated Evaluation Framework [IEF], Test and Evaluation Concept Brief [TECB], System Evaluation Plan [SEP], QT Plan, Operational Test Plan [OTP]).

Using the Data Source Acceptance Worksheet

The OTA uses the Data Source Acceptance Worksheet to assess external data sources and test plans upon QVP submission, and then to assess the data provided upon QDP submission. The System Evaluator follows the guidelines below when using the worksheet.

1. On vendor QVP submission, validates the critical factors are met by indicating yes or no in *Column C* of the *Critical Factors* worksheet. The critical factors include an Organizational Conflict of Interest (OCI) review and an international ownership assessment.
2. On vendor QVP submission, place an "X" in *Column B* of the *Data Source Risk* worksheet for each applicable assessment criteria.
3. On vendor QVP submission, identify the data source risk level for each criterion by providing a 1, 5, or 10 score in *Column F* of the *Data Source Risk* worksheet.
4. On vendor QVP submission, assess which requirements assigned to the data source have an adequate test plan by indicating yes or no for each requirement in *Column B* of the *Requirements Scorecard* worksheet.
5. On vendor QDP submission, assess the data provided for each requirement by indicating yes or no for each requirement, in *Columns C, D, and E* of the *Requirements Scorecard* worksheet.

The System Evaluator can review the overall data source risk ratings and requirements compliance by navigating to the *Scoring Summary* worksheet.