

APIs Presentation - Self-Assessment Questionnaire

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The questionnaire below is intended to be a starting point for assisting you in identifying and characterizing opportunities to leverage APIs to better support the business needs in your environment. Please see this worksheet as a living tool and feel encouraged to refine it over time; tailor it to meet the specific needs of your institution, workflow and project management processes by adding/changing the questions, wording and content so that it best reflects your institution's culture and priorities.

Step 1: Identify the opportunity/need

1. What does the workflow or data interaction look like that might benefit or be supported by an API? To assist you, several scenarios are listed below, beginning with those that are more common.
 - a. [Common] It involves retrieving data from **one** of our internal systems and then providing that data to other departments/staff **within** our organization so they can?
 - i. Build reports
 - ii. Use it in a mobile application
 - iii. Embed it for display in a website
 - iv. Import it into the database of some other application a department uses
 - v. Something else: [identify what this is]
 - b. [Common] It involves retrieving data from **one** of the external systems we use and then providing that data to other departments/staff **within** our organization so they can? [same options, i. - v. as provided in (a) above].
 - c. [Less Common, more complex] Similar to (a) except that it involves simultaneously retrieving data from **two or more internal** systems.
 - d. [Rare, high complexity] Similar to (c) except that it involves simultaneously retrieving data from a mixture of two or more systems that **may each either be internal or external**
2. Having identified the scenario that best describes the workflow or data interaction you believe you're working with, continue to the "Step 1" work sheet on the next page and following the instructions provided. This worksheet is designed to assist you in getting a high-level understanding:
 - a. The primary locations of the data sources that participate in your scenario
 - b. Specific relationships within a single data source or between multiple data sources that present a significant value in one more of the follow areas:
 - i. Provides a KPI (Key Performance Indicator) / Decision-making metric
 - ii. Creates derivative information that enhances / adds values to existing data
 - iii. Creates a consumable data stream/feed of interest to 3rd-party consumers
 - c. The applications/consumers/projects that would most greatly benefit from use of the API

Step 1 Worksheet:

- Indicate “Step 1” Scenario: ___ (a) ___ (b) ___ (c) ___ (d)
- List the name/description, type, location, and business owner/department of each data source (or sources) that are anticipated to be involved in order to further explore this opportunity:

Reference Example

Name/Description	Data Type/Format	Location	Business Owner/Dept
Membership Data	Relational Database (SQL Server, MySQL)	CRM System (Raiser’s Edge, Enterprise, Tessitura)	TBD
Ticket Sales History	Relational Database	Ticketing POS, Cloud-hosted	Ticketing Dept / Audience Services
Website “Hit Rates” to specific Events	Flat-file Format	Web server, 3rd-party data center	Information Systems

- Give thought (only at a high-level for now), about what type of relationship you want to draw between the datasets listed above (if there are more than one), and right out your notes on that below:

- Lastly, identify what the specific target applications are that you have in mind for consuming the data that would be exposed by an API, from the sources you’ve identified in the table above:

Reference Example

Consuming Application	Stakeholder	Brief description of purpose/function
Member Website	Dir. of Membership	Let member view detailed trans. history
Secure Executive Intranet	Dir. of Marketing	View detailed sales performance trends aligned with campaign calendar and corresponding impact to website traffic

Step 2: Identify your Subject-matter Experts (SMEs)

Having put the time and thought into identifying the high-level characteristics of the opportunity, it will now be useful to identify your SMEs. Your SMEs, combined with the business Stakeholders that you identified as part of the Step 1 worksheet, will round out the core team that will be needed for having an effective first meeting to validate the proposed idea and determine whether there's sufficient need to commit the resources required to move forward.

For each of the data sources listed in the first table on your Step 1 Worksheet, identify by name, the corresponding SME who can best address any specific questions surrounding the nuances of that data.

This may include questions such as:

1. What systems populate this data source?
2. How volatile is the data? (how frequently is it updated/changed)
3. What business rules must be respected when writing queries that directly "read" this data from its source database, independent of any application through which we'd normally view the data?
4. What other special considerations should be taken into account?

Step 3: Request and schedule a preliminary meeting to validate the opportunity described in Step 1.

This meeting should include the SMEs and Stakeholders you have identified. Your goal at the end of this meeting is to walk away with answers to the following questions:

1. **Applicable.** Are the data sources identified correct for the need that has been identified? By "correct", we mean that these data sources contain, in some form, the information needed to create an API with interfaces to our intended consumers that are meaningful and relevant.
2. **Actionable.** Are the identified consumers of the data in a ready position to begin integrating with the proposed API and taking reasonable advantage of the information it would provide? We want to be conscientious about the "field of dreams" scenario: "If you build it, they will come". If the audience for the API is still only hypothetical, then perhaps the ideas is a good but just not timely.
3. **Mangeable.** Is there a clear, well-defined scope of functionality that's planned for the first version of the proposed API? Have we defined a high-level list of the Request Interfaces? Who we intend to be the consumers of each interface? What behavior each interface should have? What results it should provide? Do we feel confident that this is the appropriate sizing for version one?

Based on the discussion and answers to the questions presented in the three areas above, a clear sense of whether to move forward with this project is very likely to be established. At the very least, it will provide an opportunity what information is missing before a decision can be reached. If that's the case, gather that information and schedule a follow-up meeting to re-visit these 3 question areas.

If a decision is reached to move forward, your next step is to begin defining a formal project plan/team, developing a timeline, tasks and using this questionnaire as a springboard for your high-level design work.