Narrowing Technology Solutions for Integrated Data System (IDS) Initiatives

A Provider Framework Toolkit

Actionable Intelligence for Social Policy at the University of Pennsylvania, written in collaboration with Asemio

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AISP enlisted support from Asemio to develop materials to help AISP and network partners understand the technology options that support improved social policy planning and analysis as well as identify opportunities for innovation. This initiative produced a shared framework to facilitate the discussion and comparison of available products, strategies, and partners that support cross-sector data sharing efforts along with a set of recommendations to guide further service, platform, and partner development.

The shared framework was created to help describe technology products that support data sharing for improved social policy planning and analysis. The landscape of data sharing platforms in this domain is still emerging, and technology evolves quickly. Given this, it can be challenging to understand and compare available tools and strategies. The framework is intended to support alignment of discussions of new and existing products, strategies, and partners.

Access the toolkit **here**.

Who is this toolkit for?

This toolkit is useful for Chief Data Officers (CDOs), Chief Information Officers (CIOs), data analysts, researchers, and program leadership at public agencies or community backbone organizations, as well as technical project or program managers.

What is its intended use?

The **Provider Framework Toolkit** can be used to help frame your integrated data system pipeline development needs. It is intended to be most helpful when beginning an assessment process for technology selection. This tool can help your team evaluate new tools, provide support in defining the components of a new IDS infrastructure, offer a mechanism to assist in considering component replacements, and support planning efforts for new innovations or modernization.

This tool is not intended to replace existing project, program, or vendor evaluation processes or matrices. It is designed to be a helpful addition to your existing processes that could be utilized to narrow a list of vendors for an initial RFI grouping, clarify a vendor value proposition that is being made, and identify where a potential partner may best fit into your data engineering, orchestration, and pipeline management systems.

Use Cases

Here are a few scenarios in which it may be helpful to use the Provider Framework Template toolkit:

- During internal vendor evaluation meetings
- During ideation sessions in which pipeline or IDS tuning opportunities are being explored
- When comparing lists of vendor products or services
- When ideating or planning projects that may link data across verticals (i.e., local community data, state data, federal data)
- When building new pipeline infrastructure for an existing or new IDS
- When attempting to understand vendor strengths and weakness across the pipeline

Here are some guiding questions to help maximize the benefit of this tool:

- What is the problem you are trying to solve?
    - Possible answers could be:
        - *Improved ETL scheduling*
        - *Getting access to difficult-to-reach data*
        - *Providing or expanding secure access to data*
        - *Improving security of protected data*
        - *Shifting to a new architectural design pattern*
        - *Improving record linking approaches (e.g., using privacy-preserving record linking technologies)*
        - *Increasing innovation through new predictive analytics use cases*
- Are you solving a problem that requires **depth** and specialization of infrastructure or **breadth** across pipeline or verticals (i.e. local, state, federal)?
    - *If depth, look for specialization in a column or focus on one vertical.*
    - *If breadth, look for entries that span multiple columns in the data pipeline lens or experience across verticals.*
- What is your tolerance of risk or openness to innovation?
    - *Use the tool to evaluate organizational and product maturity.*

What to do next?

With this information, you can:

- Use the output to build your vendor evaluation matrix

- Use the output to narrow down your list of possible vendors
- Take the output as an input into an RFP process
- Use this matrix to determine which vendors should receive an RFI
- Take the output and use it as an input to a greater process (e.g., enterprise architecture development, configuration management)

Guidance On Scoring the Provider Framework Template

At the bottom of this document, you will find two Provider Framework Templates, one with instructions and another that is blank. Utilize the instructional template and guidance below to help to fill in the blank Provider Framework template.

Access the Toolkit **here**.

At the top of the Provider Framework Template, general information about the organization can be filled out. These include the following: company logo, year established, legal type, number of staff members, and investment model. You can also highlight whether the organization works within state, local, and/or federal realms directly below this section.

Below are some suggestions for how to score the **Strength of Vision**, **Operational Execution**, and **Product / Service Maturity** fields**.**

Strength of vision is intended to be a subjective analysis of providers' ability to help define market needs, align products and services to those needs, and advance the market through the curation and implementation of innovative concepts, products, and services.

Scale

- **Very low:** Little understanding of market dynamics or concepts (e.g., collective impact, evidence-based policymaking, administrative data).
- **Low:** Some familiarity with market concepts, but breadth and depth is limited.
- **Medium:** Familiarity with market concepts and tools; however, typically in one or few areas and depth may be limited.
- **High:** Wide breadth and deep depth of market concepts and an understanding of the intersection between the technical capabilities in the market, as well as how they line up with the market demands.
- **Very high:** A clear understanding of market context including domain needs (e.g., vertical and horizontal integration, interoperability standards, balancing data utility and personal privacy), as well as a path to meet these needs and an intentional technology strategy (e.g., use of off-the-shelf versus custom service and product creation).

Operational execution is intended to be a subjective analysis of a providers' combination of organizational experience, domain experience (e.g., social policy), and technical experience. This includes expertise of the team as well as past history of related accomplishments, and how well-resourced an initiative is.

<u>**Scale**</u>

- **Very low:** Little to no relative domain experience and few resources.
- **Low:** Resources may be sparse. Inconsistent or incoherent marketing or product and service approach that may not align with expected experience in the field (using acronyms incorrectly, concepts out of context, overuse of technical jargon, etc.).
- **Medium:** Organization includes team members with relevant and comprehensive domain and technical expertise. Resources seem sufficient for intended goals and purposes.
- **High:** Clearly documented history of meeting or exceeding performance goals based on accomplishments, awards, professional affiliations, partners, clients, and other publicly available documentation. Team members have relevant experience in similar roles or projects. Well-resourced initiative.
- **Very high:** Clearly documented history of significant accomplishments and performance at scale (national, international, cross-domain). Exceptional team with high-quality background advancing similar or related initiatives.

Product / Service Maturity is intended to be a subjective analysis of a providers' productization of a service or maturity of a product in relation to key data pipeline activities including:

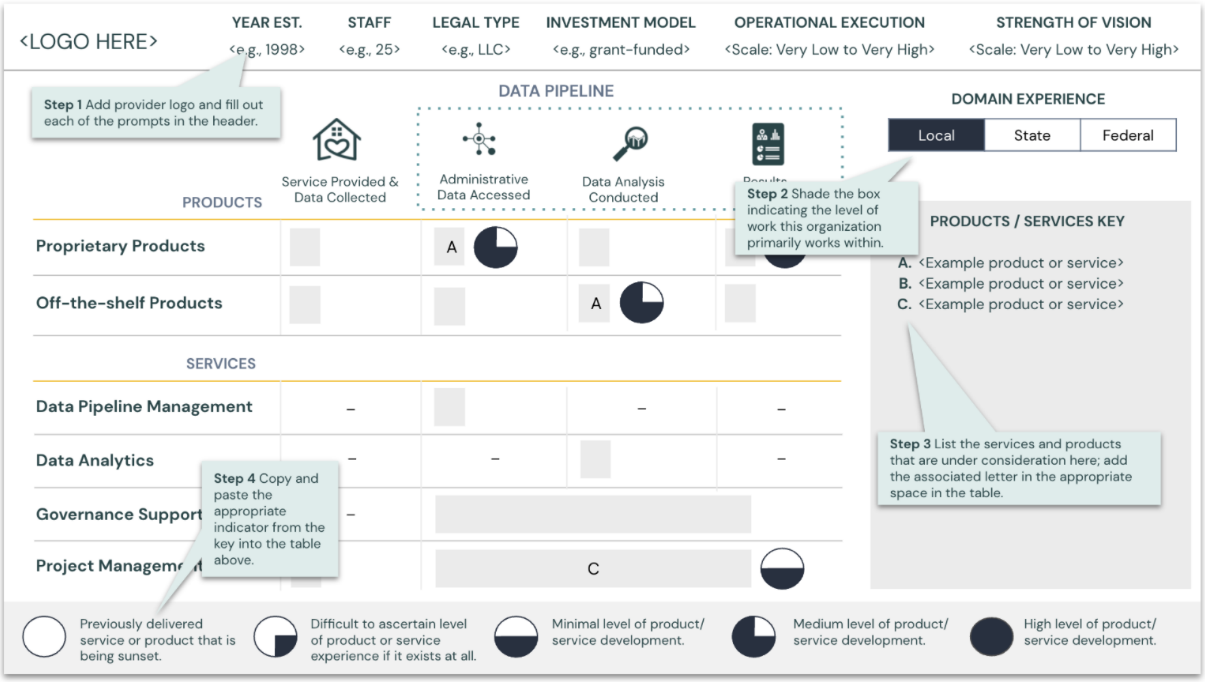
- **Administrative Data Accessed** refers to services or software that support data profiling, movement, transformation and manipulation; may include connectivity, record-linking, transformation, cleaning, standardization, de-identification, meta-data management, data quality insight, and geo-coding
- **Data Analysis Conducted** refers to services or software utilized to analyze and interpret data that has been curated and prepared for analysis by the pipeline management infrastructure, and/or software used to help humans visually explore, recognize, and articulate patterns in data.
- **Results Shared** refers to services or software supporting the codification, classification, store, change management, and transmission of information; support the transformation of raw information into a format that can support active decision making, synthesis, and analysis

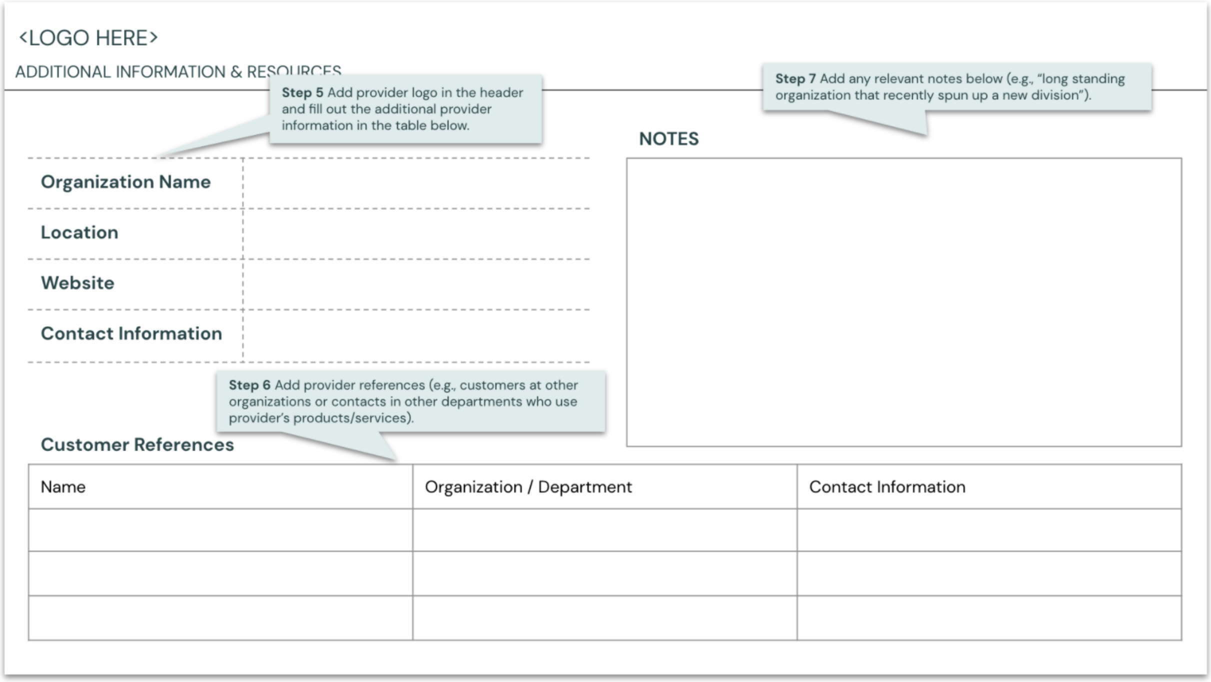
Scale

- **Difficult to ascertain level of productivity or service experience, if it exists at all.**
  - There is no online material, available artifacts, or history of the organization having delivered this product or service. There may be little to no staff experience to support the purported competencies.
- **Previously delivered service or product that is being sunset.**
  - The service or product will no longer be offered.
- **Minimal level of product or service development.**
  - Some collateral is available to support the product or service and the team has recruited individuals that could reasonably be expected to deliver these products or services based upon resume, history, or experience.
- **Medium level of product or service development.**
  - The organization is clearly delivering a service that has been repeated many times, possesses easy to find online examples, and team member competencies align with marketing claims. Documentation may still be spotty.
- **High level of product or service development.**
  - Online materials, marketing, and team member biographies all align to provide a picture of a highly developed product or service. There may be pricing sheets or other collateral (e.g., online help, service ticketing system, training materials, online videos / demos) available for perusal, as well as roles found typically in more mature organizations (e.g., product manager).

Provider Framework Toolkit: Reference Images

Access the Toolkit [here](#).





Instructions

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YEAR EST.	STAFF	LEGAL TYPE	INVESTMENT MODEL	OPERATIONAL EXECUTION	STRENGTH OF VISION
<e.g., 1998>	<e.g., 25>	<e.g., LLC>	<e.g., grant-funded>	<Scale: Very Low to Very High>	<Scale: Very Low to Very High>

DATA PIPELINE

PRODUCTS	Service Provided & Data Collected	Administrative Data Accessed	Data Analysis Conducted	Results Shared
Proprietary Products				
Off-the-shelf Products				
SERVICES				
Data Pipeline Management	–		–	–
Data Analytics	–	–		–
Governance Support	–			
Project Management				

DOMAIN EXPERIENCE

Local	State	Federal

PRODUCTS / SERVICES KEY

A. <Example product or service>
B. <Example product or service>
C. <Example product or service>

Previously delivered service or product that is being sunset.
Difficult to ascertain level of product or service experience if it exists at all.
Minimal level of product/ service development.
Medium level of product/ service development.
High level of product/ service development.

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ADDITIONAL INFORMATION & RESOURCES

Organization Name	
Location	
Website	
Contact Information	

NOTES

Customer References

Name	Organization / Department	Contact Information

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