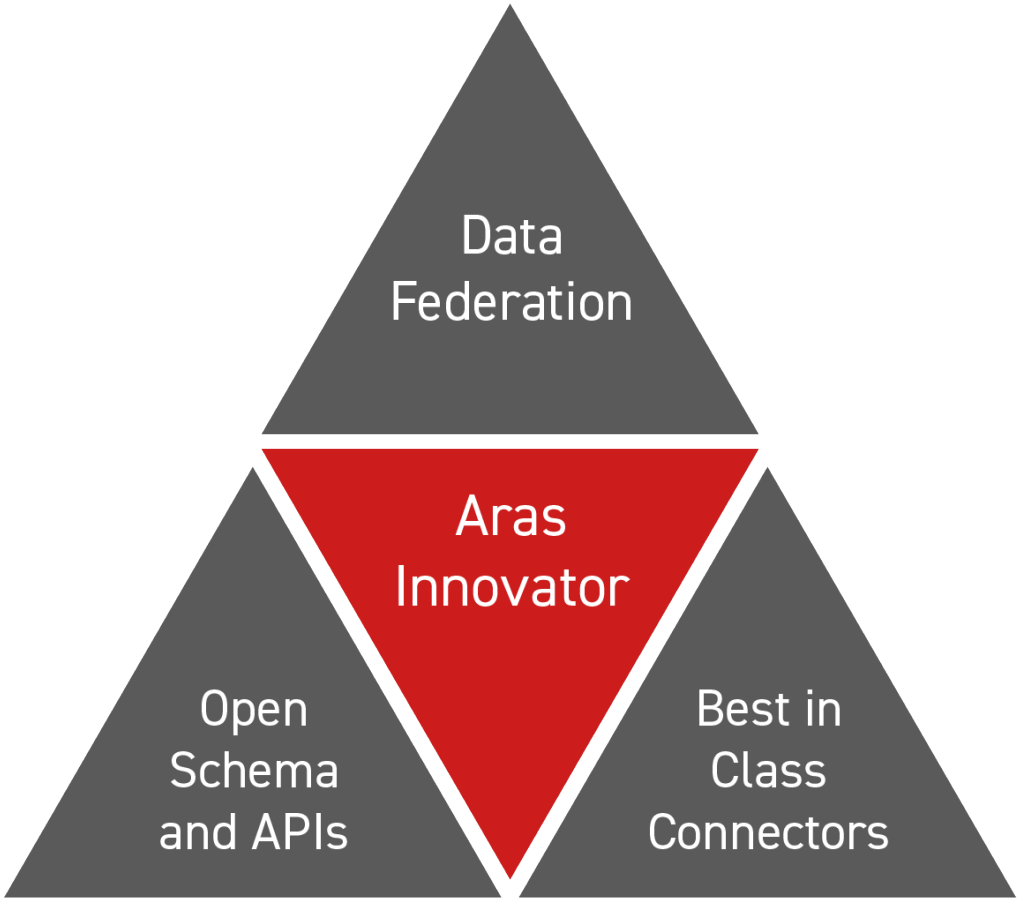
eBook

INTEGRATING THE ENGINEERING ECOSYSTEM

Enterprise Product Lifecycle Management (PLM) systems cannot function in a vacuum. At the end of the day, a PLM system can begin to get information centralized and out of email and spreadsheets, but the job is only half done if that system keeps the data limited to the engineering silo. Additionally, a successful PLM system must interface with a variety of other systems and authoring tools. Inevitably, some of these systems are homegrown, outdated, or simply architected in a closed manner.

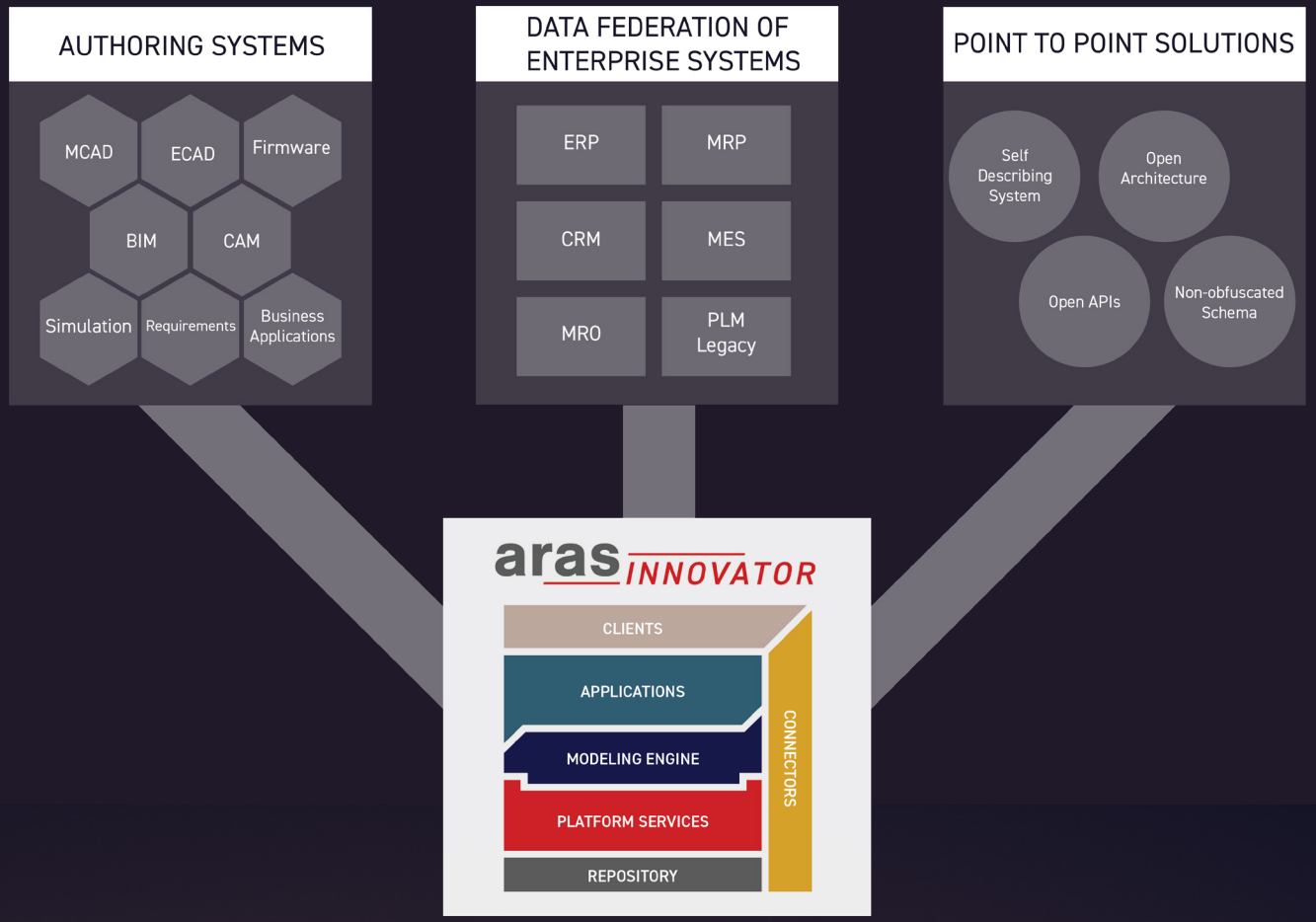
Aras Innovator provides multiple options for integrating data between systems, depending on the scenario. Utilizing the right approach to meet specific business requirements is vital. These needs range from authoring tools, federating data from various and dissimilar databases, and triggering processes and workflows. This ensures that the right data is available to the right people.

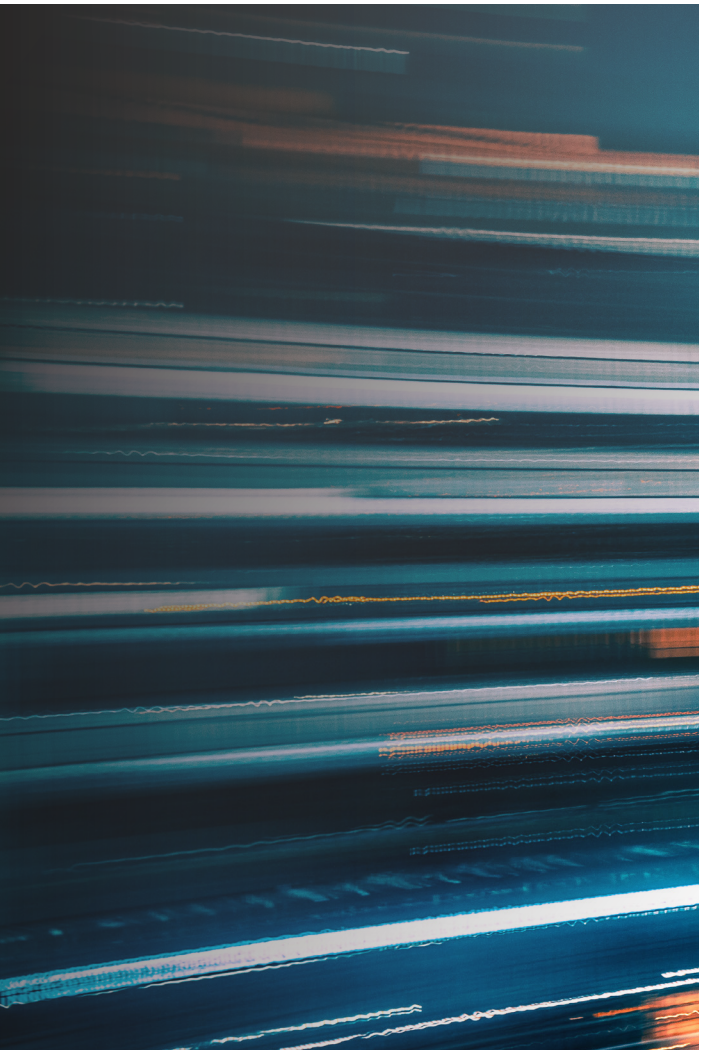


DATA FEDERATION SERVICES

Aras Data Federation Services provides an intuitive user interface to connect many systems directly. Often critical business systems have complex data models, varying business requirements, and different connection needs from one installation to the next making off the shelf partner integrations less ideal.

Aras Data Federation, as a platform service, enables users to leverage data objects while reducing the need to write custom code. Information extracted from outside systems can either be physically copied into an Aras Instance, or can be referenced in real-time by an Aras application. No matter where your business data is located, it can be available to key people through your core collaboration system.





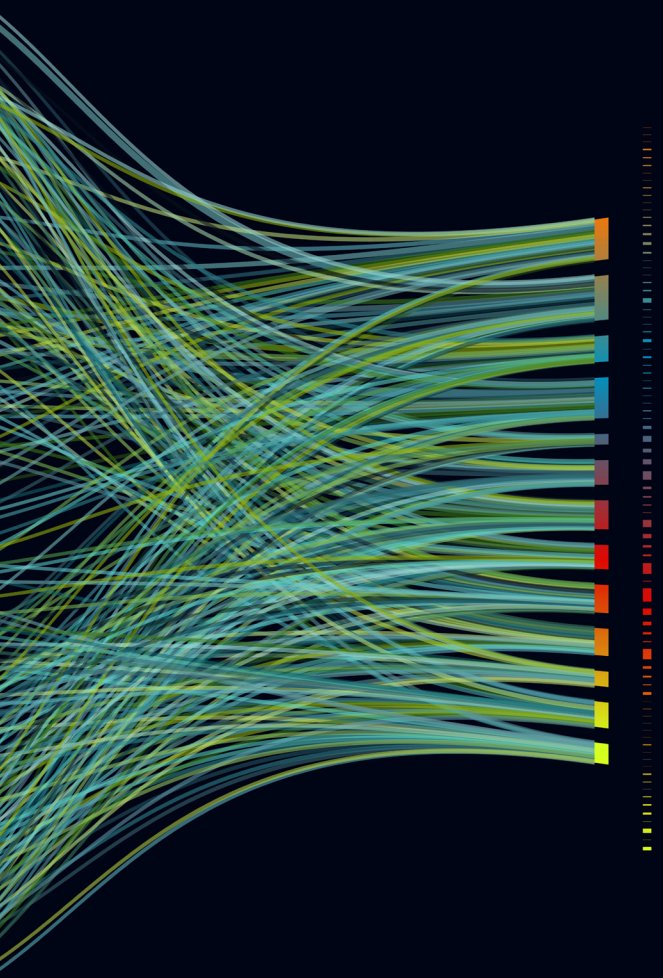
Aras Data Federation Services are part of the core services layer and utilizes a sophisticated modeling engine. It is not an afterthought, an API, or a back door, but rather a planned part of the open Aras platform stack. With Aras' singular user interface, users and administrators can easily view data from multiple federated systems, audit their connections, and manage connected systems from a single place.

Processes can easily be shared between systems, based on triggers, which enables workflows across various key business systems. Aras Innovator has several standard triggers to ensure timely integration, including get /add /update /delete logic to retrieve and manipulate data from external sources, but custom methods with programable logic are available as well.

Rather than sifting through lines of cryptic code to understand enterprise applications, the Aras Federation extension package will describe three elements:

- What the external data model looks like
- How the data is communicated to Aras Innovator
- The format of the data

This user-friendly data federation environment enables a new level of clarity around the vital connections between core business systems—surpassing old methods of writing custom code.



OPEN SCHEMA AND APIS

Anyone who has worked with enterprise systems knows that under the covers there are many complex systems and the data is often intentionally obfuscated by the software provider. Aras is different. With the Aras platform, our community utilizes a self-describing system with an open schema that is easy to read and comprehend, minimizing the effort required to integrate it with other enterprise systems. By adopting uniform naming conventions and consistent, accessible APIs, the need to continually reference extensive and complex documentation is reduced. When developers can easily access clearly labeled schema, integration efforts are dramatically reduced.

The Aras community is encouraged to customize their installation and integrate with other mission critical systems without fear of creating a barrier to upgrades. More information on customizing and integrating Aras Innovator is available as part of a subscription through the Aras Developer's course and supported through Aras support and open community forums.

Today's engineering ecosystems extend beyond the bounds of a single corporate firewall. Collaboration with partners and their systems is necessary and maintaining security is also crucial. For a more in-depth look at the how to's of connecting suppliers, partners, and manufacturers, check out Making the Connection.

BEST IN CLASS CONNECTORS

Sometimes the easiest way to connect the most common systems is through leveraging off-the-shelf connectors developed by partners to work with specific applications. For PLM applications these connectors fall into several categories:

- Authoring Tools
- Simulation Tools
- PDM Data Vaults
- Legacy PLM Systems
- Enterprise Business Systems

An important lens through which to look at your systems is examining the breadth of their available connections. Does your vendor have a tool agnostic view, or do they only work seamlessly with authoring tools that they sell and support? Between mergers and acquisitions, co-development with other groups, and increasing supplier collaboration, it is no longer reasonable to think that everyone is working with the same file formats. Systems need to work equally well with all of a company's authoring tools as well as the file formats used by the company's partners and supply chain.

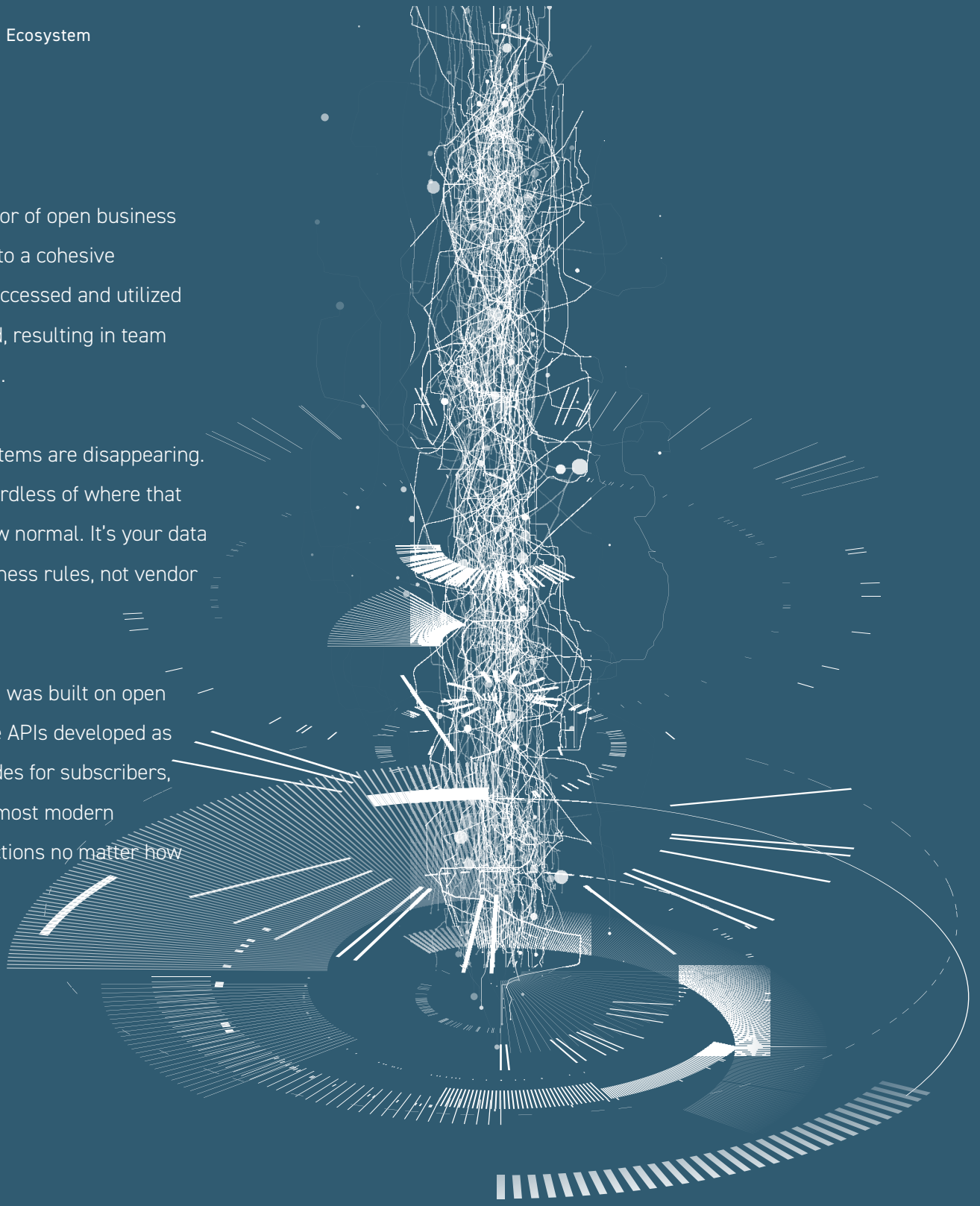
CONCLUSION

Clearly, siloed applications have lost ground in favor of open business platforms that are able to weave business tools into a cohesive ecosystem with greater adaptability. Data can be accessed and utilized in various systems no matter where it was created, resulting in team members having more open access to critical data.

The days of needing various logins to multiple systems are disappearing. Displaying data inside of the working system, regardless of where that data was generated or primarily housed, is the new normal. It's your data and it should be accessible according to your business rules, not vendor license agreements.

Aras is different. The enterprise low-code platform was built on open principles rather than using complex and selective APIs developed as an afterthought. This is combined with free upgrades for subscribers, ensuring that your company will benefit from the most modern architecture without affecting existing data connections no matter how stuck in time your legacy systems are.

Learn more about the Aras Resilient Platform.



Aras provides a resilient platform for digital industrial applications. Only Aras offers open, low-code technology that enables the rapid delivery of flexible, upgradeable solutions for the engineering, manufacturing, and maintenance of complex products. Aras' platform and product lifecycle management applications connect users in all disciplines and functions to critical product data and processes across the lifecycle and throughout the extended supply chain. Headquartered in Andover, MA with major offices throughout the world, Aras supports more than 350 global multinational customers and over 250,000 users. The Aras Innovator platform is freely downloadable. All applications are available at a single subscription rate, which includes all upgrades performed by Aras. Aras customers include Airbus, Audi, Denso, GE, GM, Honda, Kawasaki, Microsoft, and Nissan.

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