



# Aras Innovator Solutions Overview



15 Minute  
Read Time

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Not sure what PLM is? That's okay. Review this [quick overview](#) of PLM to ensure you get the most out of this datasheet.

## Introduction

The last decade has been challenging for many companies. Fast-paced change has been fueled by various pressures ranging from technological advances and automation to globalization and intricate supply chains. For many businesses, this new environment is driving an acceleration in the complexity of both products and the related production activities in the product lifecycle. The need to drive efficiencies, stand up to the competition, and improve profitability are more pressing than ever.

On the technology front, companies have responded with resourcefulness and creativity by extending the use and value of tried-and-true solutions such as email, spreadsheets, file folders, customized SQL-based applications, and various legacy point solutions. However, this resourcefulness has created isolated silos of data, drawings, processes, and documents, along with unmanaged "tribal knowledge" and manual processes. In turn, intervention-based actions are needed to overcome disconnected and incomplete data, erroneous versioning, unclear task assignments, impaired visibility, and so on.

Collectively, these interventions contribute to significant inefficiencies and ultimately, lower employee morale, reduce product quality, hurt customer reputation and create profitability leakages. Many companies dismiss these activities as a cost of doing business, but this innocent complacency can be a critical miscalculation. Despite inventiveness and best efforts, growing your business and staying competitive cannot rely on the overextended tools of yesterday. Fast-paced change and complex multi-disciplinary product lifecycles demand a shift in thinking and technology. Enter the Next-Generation PLM.

## Aras Solution Overview

### Next Generation PLM

Aras, an American-based software company, has established its product lifecycle management (PLM) solution, Aras Innovator, as the most disruptive PLM offering in recent years. Vetted and adopted by the likes of Boeing, General Electric, General Motors, and Microsoft, the Aras Innovator solution has proven its ability to support a wide range of product lifecycle needs. The key qualities that differentiate Innovator and define next-generation PLM are:

1. Platform-Based Architecture
2. Scalability and Extensibility
3. Flexibility
4. Upgradability

### Platform-Based Architecture

At its core, Aras Innovator is a platform designed to support the multi-disciplinary capabilities of the product lifecycle on a single platform. This architecture recognizes that next-generation PLM goes beyond just engineering and manufacturing. Rather, it's an enterprise-wide solution that can extend from the "headwaters" of product data such as quoting and requirements gathering to downstream activities such as gathering problem reports from the field, maintenance, and obsolescence. While Innovator is known for its best-in-class PLM and PDM capabilities, the solution's broader functionality is ultimately the platform for digital transformation throughout the enterprise.

“Next generation PLM is an enterprise wide approach that goes beyond engineering and manufacturing.”

Today, Aras and the partner community have developed over 40 out-of-the-box modules for the platform and countless others for more specific applications. Some of the core modules include:

- Bills of Material (BOM) Management
- Parts Management
- Project Management
- Configuration Management
- Quality and Regulatory Compliance
- Requirements Management
- MCAD and ECAD Integrations
- Manufacturing Process Planning
- Collaboration and Reporting
- New Product Introduction

The platform’s cohesive data and process management framework allows these various capabilities to work in concert against a single source of truth. This empowers, for example, the project manager, mechanical and electrical engineer, and quality manager to contribute to a unified digital thread of product information. This digital thread can now continue unbroken from pre-award engineering through product development and manufacturing, and on into service. No more disconnected emails, Excel spreadsheets, ad-hoc releases, or lost information.

### Scalability & Extensibility

As worldwide supply networks and multiple manufacturing sites become the norm, scaling demands are pushing many traditional PLM environments beyond their limits. In contrast, Aras is scalable by design. In a 2014 test conducted by a collection of technology consulting firms and in collaboration with HP, Aras Innovator demonstrated its ability to support one million named users and 250,000 concurrent users running on distributed HP servers and setting

industry standard in performance and resource utilization efficiency.

Aras’ larger subscribers such as Airbus and General Motors, with 30,000+ users across numerous continents, have the same high performance as a small Tier Two automotive supplier with 50 users at a single location. As companies grow and adapt, Aras ensures that the addition of users and functionality can be accomplished with minimal effort and impact.

### Flexibility

Aras Innovator is loaded with out-of-the-box enterprise-grade PLM and PDM capabilities reflecting proven and trusted industry standards for BOM management, configuration management, project management, work flow modeling, manufacturing process planning, etc. However, Aras also recognizes that a one-size-fits-all approach doesn’t work. Data and process models should follow your business and engineering processes, not the other way around. The magic of the Aras platform is its unsurpassed configurability and flexibility. This freedom is empowered through built-in “guide rails” that ensure adherence to best practices, platform compatibility, and connectivity to the broader enterprise.

### Upgradability

The complex functional requirements of PLM coupled with the need for flexibility have beleaguered the rigid and monolithic architecture of legacy PLM. The inherent needs to tailor/customize functionality have represented time consuming and expensive upgrades leaving many companies “version locked.” Aras is so confident in their platform’s architecture that upgrades are guaranteed to subscribers at no additional cost, regardless of the configured

“Aras is accessible through your internet browser and mobile device anytime from anywhere and does not require software downloads.”

changes to the system. This is unprecedented in the enterprise software industry. Today, Aras' earliest customers (such as the US Army) are on the latest version of the Aras Innovator platform.

## Technology Highlights

### The Architecture

The unique Aras Model-Based Service-Oriented Architecture (SOA) is a central component of what makes Aras stand out against other PLM solutions. This approach ensures the solution's unrivaled flexibility, scalability, and ease to upgrade. Instead of legacy PLM's approach of defining an object model and hard coding it into the services, the Aras PLM Platform separates the two. The result is a run-time web application framework consisting of federated web services optimized for performance and scalability. As a web-based application, Aras is accessible through your internet browser and mobile device and does not require software downloads.

### Open & Standardized

To customize or extend traditional PLM applications you must use the vendor's published API. However, without detailed knowledge of the internal workings of the application, you are working blind and adding cost and risk to your implementation. Aras takes a different approach, making the source of the application available to you so you can modify it directly – saving time and reducing project risk. This hybrid open source model provides unprecedented transparency and control over business-critical activities.

Aras is also built on highly standardized web services including application servers, databases, file vaulting servers, and protocols including HTTP/HTTPS, XML and SOAP. This open approach

also leverages Microsoft products such as SQL Server, .NET, and Windows Server. To learn about Aras' commitment to openness, read the Aras ProSTEP iViP [Code of PLM Openness \(CPO\)](#).

### Connectivity

Aras Innovator provides “plug and play” connectors for common CAD tools, PDM and vaulting solutions, and Microsoft Office applications, among others. These connectors leverage the Aras Innovator Object Model (IOM), a comprehensive, documented, and freely distributed DLL version of the API. This is ready for use in environments like Visual Studio or VBA. In addition, Aras supports all .NET data exchange methods and integration infrastructures (EAI/ESB) such as Oracle Fusion, BizTalk, Mule Sonic, and other integration hubs/buses.

### Built-in Security

Aras Innovator has security built-in from the ground up. In fact, the Aras security, authentication, and data access rights model was defined to meet the needs of its defense industry customers to satisfy ITAR and other military security compliance requirements.

### On-Site, Cloud, or Hybrid

With a modern, flexible platform you have complete control over your deployment - data center, cloud, or hybrid. You can deploy on-site and migrate to a hybrid or full cloud model without losing any solution capabilities, or start in the cloud and move to your data center whenever you want.



“You can download and register the Open version of Aras Innovator today and be up and running in an hour.”

## Licensing & Pricing

Traditionally, companies have faced high initial costs to acquire PLM or PDM solutions, followed by unpredictable costs for support, maintenance, and upgrades. This places a huge burden of risk requiring companies to commit significant expense and resources long before the success of the system can be demonstrated. Aras takes a different approach that minimizes risk, ensures predictable costs, and allow companies to explore and interact with the solution at their own pace.

The two primary licensing options are the Open License and Premium Subscription. The Open version of Aras Innovator is free and includes many of the platform’s core PLM and PDM capabilities. You can download and register the Open version of Aras Innovator today and be up and running in an hour. Thousands of companies of all sizes are using the Aras Open version in production across the entire product lifecycle.

The Premium Subscription option provides access to the platform’s full enterprise capabilities and includes other benefits that significantly enhance the scope and value of the solution, including the upgrade service, training, and support. This hybrid open-source approach provides unprecedented flexibility and transparency. In fact, many companies start out with the Open version - at no cost - and transition to the subscription once value and user adoption are demonstrated.

Figure 1 highlights the key differences between the benefits for Aras Open and the Subscription. Figure 2 looks at pricing for the Subscription. In the Appendix, the PLM, PDM, and Platform capabilities of the Open and Subscription options are illustrated in Figure 3.

**Figure 1.** Open and Subscription Benefits Comparison

Feature Options	Open	Subscription
Open capabilities	✓	✓
New releases	✓	✓
Community solutions	✓	✓
Community portal	✓	✓
Training	\$	✓
CAD Connectors	\$	✓
Consulting services	\$	\$
Subscription capabilities		✓
Upgrades		✓
Productivity tools		✓
Service packs		✓
Help-desk support		✓
Subscriber portal		✓

**Figure 2.** Subscription Pricing

Subscription Pricing	Price/User/Month
Tier > 5,000	< \$22
Tier 5,000	\$28
Tier 2,500	\$35
Tier 1,000	\$44
Tier 500	\$56
Tier 250	\$65
Tier 100	\$68
Tier 50	\$70
Tier < 50	> \$70

“Aras’ unique business model has democratized the accessibility of enterprise-worthy PLM capabilities. Today, over 25,000 companies use Aras Innovator.”

## The Aras Community

Aras and the partner network are committed to openness, transparency, and engagement with the broader user community. This approach has created an innovative and resilient ecosystem of community forums, open projects, a knowledge base, and lab environments that contrasts the gated communities of traditional enterprise solutions.

New users have immediate access to best practices and lessons learned from others who are often in the same industry and tackling similar issues. Users are invited to help define the future of next generation PLM. There are countless forums and community projects around supply chain operations, enterprise quality, manufacturing, and other industry specific activities that can be critical to your initiatives. Ultimately, this ecosystem informs Aras’ voting-based development roadmap that is completely transparent and influenced by the community’s engagement around various features, fixes, and upgrades.

The annual Aras Community Event (ACE) is a weeklong gathering of learning, idea-sharing, and user presentations. Not only does this keep the technology grounded in solving real-world issues, but it also accelerates innovation. Over the last few years, industry analysts and pundits increasingly look to ACE as setting the tone for the current and future trends in PLM.

Within the Aras community is a rich collection of Aras partners that bring industry and domain-specific expertise. Aras relies on partners to contribute to the connector library (e.g., for various CAD, ERP, CRM, and PDM integrations), build industry specific modules, support certain types of implementations, and provide services and consulting. As an Aras Gold Partner, the vdR

Group is one of Aras’ earliest and most trusted partners.

## Adoption & Competitors

Aras Innovator has a reputation for meeting the needs of businesses of all sizes while providing excellent value. Aras Innovator is used in over 25,000 companies across more than 160 countries. Aras is increasingly displacing traditional PLM solutions at large global brands such as BMW, Airbus, Microsoft, GM, Motorola, Audi, and many others. Moreover, Aras’ unique hybrid opensource business model has democratized the accessibility of enterprise-worthy PLM capabilities. Not surprisingly, a majority of Aras’ user base is represented by small to medium-sized companies.

Large legacy PLM solutions such as Dassault Systemes’ ENOVIA, PTC’s Windchill, and Siemens’ Teamcenter have been losing ground to Aras over the last several years. Most of these solutions were originally designed to manage CAD data alone. As demand increased for additional features to support fast-paced change and product complexity, these solutions have evolved on dated technology into a collection of loosely coupled point solutions through countless mergers and buyouts. The result is a systemic data-process disconnect, disparate functionality, poor usability, and an underlying architecture that struggles to scale. As a result, these solutions are expensive, difficult to implement, maintain, upgrade, and integrate poorly with modern best-in-breed systems. Aras Innovator offers a new way forward that is enabled by the next generation capabilities needed for today’s complex projects and fast-paced change.

"Aras' voting-based development roadmap is completely transparent and informed by community engagement and feature requests."

## Appendix

### Open Versus Subscription Capabilities

Aras capabilities are available on either a Subscription or Open basis. The Open license provides use of Open capabilities at no cost. The Subscription gives organizations access to all Aras capabilities and includes benefits such as unlimited training, priority support, and upgrades. A list of these benefits and Subscription pricing can be found on page 5.

**Figure 3.** Availability of Capabilities

PLM Capabilities	Open	Subscription
Documents	✓	✓
Parts	✓	✓
Bills of Material	✓	✓
Change	✓	✓
Configuration Mgmt.	✓	✓
Projects	✓	✓
Component Engineering	✓	✓
Quality	✓	✓
Systems Engineering		✓
Requirements		✓
Technical Publications		✓
PDM & ALM Integrations	\$	✓
PDM Capabilities	Open	Subscription
Documents	✓	✓
Parts	✓	✓
Bills of Material	✓	✓
Change	✓	✓
Office Connector		✓
Digital Mockup		
Platform Capabilities	Open	Subscription
Lifecycles	✓	✓
Workflow	✓	✓
Security	✓	✓
Internationalization	✓	✓
Reporting	✓	✓
API Integration	✓	✓
Vault	✓	✓
ERP and CAD Integration	\$	✓
Single Sign-On		✓
Visual Collaboration		✓
Enterprise Search		✓

## Continue Learning

Join the conversation with vdR in the Practical PLM Portal. The Portal is a collection of resources aimed to help companies realize the promise of PLM through practical advice and results-oriented conversations with practitioners and leaders in the industry. Resources include a monthly newsletter, webinar series, blog and community portal. The Practical PLM Portal is hosted by The vdR Group Inc. and industry partners.

### The Practical PLM Portal

[www.vdr.com/practical-plm-portal](http://www.vdr.com/practical-plm-portal)

### Aras Demo Library

[www.vdr.com/aras-innovator-demos](http://www.vdr.com/aras-innovator-demos)

### What is PLM?

[www.vdr.com/what-is-plm](http://www.vdr.com/what-is-plm)

### Sign up for the Practical PLM Newsletter

[www.vdr.com/practical-plm-newsletter-subscription](http://www.vdr.com/practical-plm-newsletter-subscription)

## About The vdR Group - PLM Practice

Over the last three decades, The vdR Group has emerged as a leading product lifecycle management solutions provider with a focus on driving digital transformation for engineering, manufacturing, and AEC companies. We do this via a consultative and solutions-based approach that includes strategic consulting, end-to-end implementations and application integrations. vdR is one of Aras' earliest Gold Certified partners and has helped 100s of companies ranging from Global Fortune 500 manufactures to cutting-edge start-ups. Today, over 220,000 global users leverage vdR's solutions.

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