



# From Custom Complexity to Enterprise Confidence: A Journey from Solumina G-Series to iSeries

## ► Customer Profile

**iBase-t Customer:** Large Aerospace and Defense OEM

**Challenge:** Outdated infrastructure, inconsistent customizations, and a growing demand for speed, mobility, and precision on the shop floor



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## The Situation

For more than a decade, a large aerospace and defense manufacturer relied on Solumina G-Series to power its complex manufacturing and sustainment operations. The platform had served them well—supporting thousands of technicians across multiple programs and locations.

Industry shifts and customer demand had begun to intensify and lead times were tightening. Leadership knew it was time to modernize. They saw an opportunity to transform operations and evolve their capabilities with Solumina iSeries. They then established a repeatable deployment model of the solution across all sites to achieve greater success.

- Modern web UI with streamlined navigation and role-based views to align disparate teams.
- Configuration tool to tailor Solumina's UI to their program needs while preserving upgradeability.
- Cloud-native, microservices architecture for faster performance and connectivity.
- Model-based enterprise (MBE) functionality with 3D work instructions to drive a single source of truth.

## The Approach: Assess the Landscape

The organization began with a full landscape analysis across its MES and MRO instances. Some programs were using an "out-of-the-box" version of Solumina with minimal alterations; others had heavily customized their instances over years of use.

***"We laid out all our current systems, integrations, and customizations. What ERPs do they talk to? What PLM systems? That gave us the foundation to build a true modernization strategy."***

***~Business Systems Analyst***

### Organizing the Team

From the outset, the team balanced business and IT leadership, ensuring both day-to-day user needs and strategic transformation goals were represented. A close partnership with iBase-t's team of solution architects, implementation experts, and adoption specialists played a critical role in this effort. Together, they worked to assess modernization opportunities, define functional priorities, and execute a manageable transition from G-Series to iSeries.

To ensure alignment, the iBase-t team collaborated with the customer as they established:

- Early executive buy-in and continuous updates
- User Change Boards to collect feedback and evaluate requests
- Technical Evaluation Groups to assess integration needs and system readiness
- Governance Boards to align every decision with enterprise-wide strategies

iBase-t's experts conducted supporting workshops, advising on system design, and providing real-world best practices. Their involvement extended beyond deployment, with on-the-ground support to drive training, configure sandboxes, and ensure users could adopt iSeries functionality with confidence.

This multi-layered structure ensured consistency across sites and prevented scope creep while still honoring local process nuance.



## Defining the North Star

Throughout the project, the customer kept alignment by focusing on a shared 'north star': deploying a common core configuration that could support operations across secure environments, multiple sectors, and classified programs.

***“Success meant defining a core MES model that could work across our portfolio—without reinventing the wheel every time.”***

***~Director of IT***

The organization had maintained multiple instances of Solumina G-Series, each with its own degree of customization and local adaptations. Over time, this led to fragmentation: different sites solving similar problems in different ways, with inconsistent outcomes and rising support costs. When the team began piloting Solumina iSeries, they quickly recognized an opportunity not only to modernize—but to unify.

With support from iBase-t, the customer conducted a deep analysis of their customizations across sites, identifying which were still necessary and which had become obsolete. In the first phase alone, they achieved a 10% reduction in customizations, simply by leveraging iSeries' enhanced out-of-the-box (OOB) functionality. Many capabilities that once required customizations in G-Series were now standard functions.

This decustomization effort wasn't without its challenges. Teams had to carefully weigh historical preferences against long-term maintainability. The breakthrough came by focusing on one environment at a time, allowing each site to learn, test, and adapt without overwhelming the broader enterprise.

## Deployment Milestones

1. **[0-4 months] Assessment & Planning:** Reviewed side-by-side environments (G-Series to iSeries), evaluated existing customizations, defined , mapped integrations
2. **[Months 5-6] Environment Setup:** Built new infrastructure, accounted for Kubernetes and new security baselines
3. **[Months 7-8] Testing & Validation:** Used standardized test scripts to validate technical performance improvements
4. **[Months 9-11] Pilot & Feedback Loop:** Allowed sandbox access to let users “play” with the system and deployed in a controlled environment with active end-user input
5. **[Ongoing] Enterprise Rollout:** Expanded by business unit, using lessons learned to facilitate adoption

***“We moved from managing nine different flavors of MES and MRO to deploying one unified platform—with flexibility where it matters, and standardization where it counts.”***

***~VP, Digital Transformation***

## Key Wins

Working side by side with iBase-t experts, the customer realized that migrating to iSeries didn't just modernize the user interface—it changed the conversation.

**The result:** faster adoption, reduced complexity, and a foundation that scales across the enterprise—without compromising compliance, security, or operational agility.

By adopting Solumina iSeries, the customer was able to:

- Replace customizations with supported configurations
- Share best practices and validated solutions across sites
- Establish strong governance processes that scale across classified and unclassified sites for when deviations from the standard are truly justified
- Seamlessly integrate across ERP, PLM, and MES—without fragile custom scripts
- Reduce rework and data errors leading to faster cycle times
- Accelerate deployments with fewer unique exceptions
- Embrace the digital infrastructure necessary to support model-based engineering, UUIDs, and the digital thread

***“We didn’t just upgrade our software—we raised our expectations across the entire enterprise.”***

***~Operations Director***

## Bring in the Experts – iBase-t

Modernizing from G-Series to iSeries required more than just a software upgrade—it demanded a strategic shift in mindset, governance, and execution. By partnering with iBase-t, this A&D manufacturer gained the expert guidance needed to simplify complexity, reduce customizations, and scale a unified solution across the enterprise. With iBase-t by their side, they didn't just meet their modernization goals—they built a foundation for continuous innovation.

## Final Thoughts

- Assess early. Know your systems, interfaces, and customizations upfront.
- Don't over-customize. Let iSeries' configuration options do the heavy lifting.
- Test thoroughly. Use structured scripts to validate ERP, payroll, MES, and security.
- Invest in Organizational Change Management. Champion-led training, change boards, and documentation drive adoption.
- Embrace governance. A strong standard minimizes rework and maximizes repeatability.



## About iBase-t

iBase-t is the global leader in cloud software for the aerospace and defense industry. Committed to innovation, customer success, and product excellence, iBase-t ensures digital continuity across manufacturing, quality, and maintenance, repair, and overhaul (MRO) operations on a global scale. iBase-t's Solumina Manufacturing Operations Platform is a cloud-native solution that establishes a digital ecosystem to drive innovation and improve operational performance for the most critically complex manufacturers. iBase-t customers include Lockheed Martin, Northrop Grumman, GE Aerospace, Rolls Royce, Pratt & Whitney, and Textron.

The Solumina Manufacturing Operations Platform by iBase-t consists of an integrated suite of MES, SQM, and MRO solutions. Designed for complex, highly regulated discrete manufacturers who seek to digitally transform their operations, Solumina connects manufacturing operations, quality, and sustainment management in a seamless flow of data across the value chain and product lifecycle.

The Solumina Manufacturing Operations Platform creates the technology infrastructure manufacturers need to harness advances in model-based functionality like PMI continuity, Assisted Engineering Changes and augmented reality guidance for the workforce, IIoT connectivity for equipment, new levels of intelligence for decision making, and higher levels of customer and supply chain collaboration.

Learn more at  
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