Can Hydrogen Powered Aircraft Become a Reality?

The next era in aerospace supply chain evolution?

Value Stream Mapping in the Aerospace Industry

The future of aviation, How Vertical Aerospace has found a solution

AMBRY HILL TECHNOLOGIES
OBJECTSTREAM
MITRE
ATP

Sergio Aguirre
Gogo Business Aviation President

Most Innovative Company of the Year

Naveen Poonian
CEO

TOP 10 Leading Aviation & Aerospace Solution Providers to Watch in 2021

TOP 10
Simplifying How Complex Products are Built and Maintained

Naveen Poonian
CEO
The world of manufacturing complex, highly engineered products has forever changed. The need for operational resilience and the push for growth has challenged manufacturers to rethink the status quo of how to best manage production, quality, and sustainment operations.

It should come as no surprise that the software used to manage these processes must now change. To that end, manufacturers are embracing innovation, new strategies, and modern technologies to usher in a new era of agile production based on cloud-based applications.

Founded in 1986 in Southern California, iBASEt is a software company that simplifies how complex products are built and maintained. The company’s mission is to provide Commercial, Off the Shelf (COTS) solutions that can be easily implemented to meet the needs of manufacturers producing complex, highly engineered products. The company has grown from this strong foundation into a leading, global provider of manufacturing solutions.

Operating in a Global Pandemic

COVID-19 dramatically impacted operations, buying cycles, and supply chain coordination for nearly every manufacturer. Through this trauma, manufacturers gained two important realizations:

1. **Operations must be more resilient to better manage “shocks” to their business.**
2. **Companies must be able to support “anywhere” working by employees.**

These needs amplified investment in digital transformation or “Industry 4.0” programs, which are now being implemented at an accelerated pace. The Industrial Internet of Things (IIoT) has become an important conduit to provide better access to operations data for greater responsiveness to changing conditions. With access to more data,
intelligent decisions can be done faster with greater accuracy, either as an automated process or with employee engagement.

Another big change has been the growing acceptance of the cloud as a platform to host software applications – either in private or hybrid environments – that can leverage the hyper-scalability of cloud systems while retaining the necessary security and accessibility that network and edge devices can provide.

Technology Innovation

Five years ago, iBASEt began investing in a microservices architecture – destined to become the next platform for all future solutions. In October 2020, Solumina iSeries was launched as the manufacturing software industry’s first implementation of this technology.

By introducing this innovation, the company transformed its software portfolio to be cloud-native and highly agile. This ability empowers customers to easily perform application upgrades without operational disruption, reducing unplanned downtime and simplifying how to ensure the latest security standards are ever-present.

“We provide our customers with real-time visibility and intelligence for a 360-degree view of production, quality, and sustainment operations. With this knowledge, it is possible to operate with greater resilience and agility to plan, execute, and continuously improve operations in an unpredictable world”,

says Naveen Poonian
Chief Executive Officer
iBASEt
With Solumina iSeries, companies can update their features and capabilities in between shifts without disruption to production or quality assurance processes. Not only does this approach boost performance and reduce downtime, but it also eliminates the conventional “legacy” software upgrades that can take months to properly evaluate, test, and implement.

Solumina iSeries simplifies integration to other enterprise systems with built-in Application Programming Interfaces (APIs) and ready-to-run functionalities, which allow it to be deployed, implemented, and maintained quickly with a limited burden on IT resources for a lower total cost of ownership.

**Manufacturing in the Cloud**

A lesson learned from last year’s global pandemic was the need to better support employees working from anywhere – be it in person at the factory, remotely at home during a shelter-in-place order, or anywhere that a mobile device can operate. A chasm became apparent between those organizations that had invested in a digital infrastructure – and those that have not. Cloud-hosted applications can be more readily accessed and run from any device, including those operating outside the corporate firewall.

As a cloud-native application, Solumina iSeries can be deployed either on-premises or the Cloud – an important attribute. Regardless of where a manufacturer is in their maturity of cloud adoption, Solution iSeries can support their needs and fit within that timeline.

Another challenge that has persistently challenged manufacturers is how to support smaller, remote facilities operated by a smaller staff. Traditionally, these locations didn’t generate the revenue to justify expensive application purchases or additional licenses. These plant managers were often forced to use paper-based or manual processes to manage operations or track performance.

Cloud-based applications delivered as a managed service or as a “Software-as-a-Service” or SaaS product can address this challenge. This can make a big difference to manufacturers with smaller budgets or those under tight timeframes to implement a new system.

Solumina iSeries opens the door to a complete and full-featured Manufacturing Execution System (MES), instead of being limited to the “lite” applications limited to just analytics tracking capabilities.
Talking about iBASEt’s competitive advantage over other providers, Naveen Poonian explained, “One area where iBASEt has an advantage is our singular focus on serving the complex discrete manufacturing industry. When dealing with a low volume, highly engineered production processes that are heavily reliant upon as near “perfect” quality as possible, our software will always outperform other, more general-purpose offerings.”

Case Study

Virgin Orbit, a Virgin Group company, availed of iBASEt’s expertise for its LauncherOne program – an initiative that recently gained global attention by launching Sir Richard Branson into space. This endeavor would not have been possible without reliance upon an iBASEt solution.

Before the launch, LauncherOne Virgin Orbit had scheduled an aggressive production deadline to meet important timeline objectives. The team required a Manufacturing Execution System (MES) capable of supporting an expedited ramp-up time. The company selected an iBASEt solution to manage the production and support an accelerated ramp-up from prototype to full production. Read the complete success story.

iBASEt’s vision has been to simplify the complex. The company continues to embrace this philosophy, which has only been validated with the recent global challenges every business now faces. By investing in innovation and new technologies a better approach has emerged – one that the industry is now taking note of.
Certificate of Appreciation

THIS CERTIFICATE IS PROUDLY PRESENTED TO

iBASEt

Recognized by CIOCoverage Magazine as

For Exhibiting Excellence in Transforming Aviation & Aerospace Business.

John Wilson
Managing Editor

2021