

Power Systems Manufacturing Selects AWS and apiphani for SAP



Executive Summary

SAP Migration to AWS, M&A Carve Out, Managed Services

Power Systems Mfg, LLC (PSM) was acquired by Hanwha, a Korean conglomerate making significant investments in the emerging clean energy economy. This gave PSM a hard deadline to carve out its existing systems and processes as it was being spun off from its previous corporate owner.

In four months, apiphani migrated PSM's SAP and OpenText environments off its former parent company's system and onto a data center solution, fixed any problems, then migrated from the data center to AWS, all on deadline and with no interruption to the business. For PSM, working with apiphani and moving to AWS has been transformational.

Challenges

- Tight time frame
- Minimal documentation on any system interfaces or customization
- Limited resources provided by former parent company

Results

- Flawless migration of 50 systems to AWS, on time and on budget
- Improved SAP performance
- Time savings and increased user satisfaction
- Significantly lower AWS run costs
- Digital transformation

Situation

Power Systems Mfg, LLC (PSM) provides technologically advanced aftermarket gas turbine components, parts reconditioning services, and full-scope long-term service agreements to gas turbine-equipped power plants worldwide. PSM has developed proprietary technology that can retrofit gas turbines to improve their efficiencies and enable them to burn high hydrogen content (HHC) fuel, giving power plants greater operational flexibility and preparing them to effectively participate with their assets in the fast-emerging decarbonized power grid.

PSM also actively monitors its global customers' turbines in operation. Its proprietary autonomous digital performance software can optimize the efficiency of a turbine in real time depending on several different and changing operational variables.


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About PSM



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Prior to the spinoff, PSM was almost entirely dependent on the IT resources of its parent company. A transition services agreement was in place with a large systems integrator, but its terms seemed to favor the divesting parent company. There was insufficient focus on keeping PSM's SAP, OpenText, and other systems intact at the end of the carve-out. PSM had begun a search for a Managed Services Provider (MSP) to manage the carve-out on its side.

"The timeline was everything," said John Thorburn, Head of IT for PSM, who was hired by PSM's leadership team to help build out PSM's internal IT resources. "I had experience with M&A [mergers and acquisitions], so I understood what was coming at us as the deadline for the carve-out approached. When I saw where we were in the process and who we were working with, I became pretty anxious."

"Our goal was to come out of this migration stable and ready to scale," explained Thorburn. "Moving to AWS would enable us to do that, but the question was, how do we get there?"

PSM had already short-listed three potential MSPs, but Thorburn was concerned that none of the candidates was the right fit. "We would have calls, and our top MSP candidate would have 30 people on the call to our five. I didn't think it was a good cultural fit, and I was worried about delays and cost overruns with such a large and bureaucratic provider, so I pushed hard to bring in apiphani."

While the other companies had months to complete their proposals, apiphani had only a few weeks. "Frankly, it was brutal, but apiphani responded to the challenge. That impressed us, and it showed they had the SAP domain knowledge, sense of urgency, and flexibility we needed."

PSM decided to go with apiphani.


"Apiphani resonated with us as a company, especially with our President," explained Thorburn. "What we do is unique. PSM is a focused, nimble company up against the large companies in our market. We're known for going the extra mile with all our customers, who trust us to keep their turbines running. They expect a high degree of flexible, responsive, and transparent service from us. We appreciated that apiphani would likewise be willing to scramble to get and keep our business, working harder than everybody else. We were looking to build a long-term, trusted relationship with apiphani, just as we have with our customers."

Challenges

All PSM's systems – its SAP, OpenText, and other systems – needed to be migrated from a legacy infrastructure to AWS within four months, with minimal business interruption. This included all of PSM's finance, tax, reporting, manufacturing, supply chain, engineering, and collaboration tools, which all needed to be transitioned, implemented, and operational.

Unfortunately, PSM had no visibility into the systems being managed by its former parent company, and there was no documentation. "The systems were bespoke," said Thorburn, "either built in-house or heavily modified. Yet much of it was undocumented, and what was documented was written in a foreign language. It was a complete black box."

The systems integrator (SI) managing the transition for the former parent company would either fail to make requested changes, or it would make changes without



informing PSM. “We joked about the ‘daily hand grenade,’ where each morning we would discover yet another explosive issue as a part of the cutover. There was also a great deal of pressure by the parent company’s SI for us to sign off on their work, even before the work was even checked to ensure it really was done.”

Nor was the legacy environment reliable. “SAP was down every other week. It would just hang in the middle of the day, and people treated it like business as usual. We had no idea what ‘good’ looked like, and it was having an impact our business execution and productivity.”

Solution

After a detailed forensic analysis of PSM’s environment, apiphani migrated PSM’s SAP and OpenText environments off its former parent company’s system and onto a data center solution, fixed any problems, then migrated from the data center to AWS leveraging EC2, EBS, S3, and other AWS services, all on deadline and with no interruption to the business.

The task was monumental. There were literally thousands of modifications to the software to be accounted for, but apiphani’s in-depth experience with the SAP applications and how they integrate kept the project on-track. “This was the sort of project where you could throw 100 people at it, or 1,000, and wouldn’t have made a difference. What mattered was that apiphani’s small, focused team had an almost intuitive sense of where to look for problems,” said Thorburn.


It soon became clear that the parent company’s MSP would never complete its own work on time. “We came to the conclusion that it wasn’t going to get any better. Another two or three weeks wasn’t going to help us. What was broken was going to remain broken until we fixed it ourselves, and that couldn’t happen until apiphani was able to get its hands on the systems.”

PSM made a risk-based decision to proceed with the carve out. “As our company’s President said, ‘...better a short moment of intense pain than pain that never ends.’ I had confidence that apiphani would get us through the cutover successfully. Without apiphani, I would have pushed for a delay, because failure could have shut us down as a company.”

In the end, apiphani led a flawless migration of all 50 of PSM’s systems to AWS and then began providing full-stack Managed Services for PSM’s IT infrastructure, including OS, RDBMS, SAP, disaster recovery, system refreshes, cyber security, and technical help desk support for all SAP and standalone ancillary database infrastructure. Apiphani offered a new vision for Managed Services that leveraged AI-based Deep Automation™ to address the majority of potential Level 1 and Level 2 support issues automatically, before they became problems. This reduced ticketing and improved overall performance of SAP, resulting in time savings and increased user satisfaction.

Results

For PSM, working with apiphani and moving to AWS has been transformational. “We’ve never had IT in-house before. That’s an enabler in and of itself,” commented Thorburn. “PSM is relatively small but growing rapidly. We’ve not only been able to support the needs of PSM, but through the virtualization and secure connectivity options with AWS, we are collaborating and providing IT resources for our European-based sister company and global partners. That was a big win.”



PSM began expanding the scope of its work with apiphani almost immediately, beginning by implementing a help desk, first through SharePoint and finally with ServiceNow. “We’re now implementing several different applications that will be tightly integrated into our infrastructure and our environment. We wouldn’t have been able to do that before working with apiphani. Investing in getting SAP stable and into the cloud has given us a solid platform to build upon. We are also now actively planning an SAP upgrade for the near term.

PSM likewise sees tremendous benefits from moving to AWS. “The costs are reasonable, AWS provides high availability, and we can tap into a large partner ecosystem,” explained Thorburn. PSM makes use of Amazon EC2 to run all production workloads, AWS Transit Gateway to replace legacy site VPN monitoring, and AWS Financial Management to identify costs by workload.

“Our two biggest concerns in moving to AWS were cost management and security. Apiphani has supported us in both areas. Apiphani has direct access to our AWS tenant and has helped us manage costs from day one, making recommendations that have significantly decreased our run costs on AWS. Likewise, with security, apiphani worked with us as a trusted partner to establish the correct level of access across AWS, removing much of the friction involved in implementing quickly.”

Working with apiphani has enabled PSM to undertake and accelerate the digital transformation of its business. “Now that we have platforms that are performing, there are a whole range of new technologies and applications we plan to implement. These tools will enable us to transform our environmental health and safety, development environments, and our product engineering groups.

Now, PSM is exploring using apiphani to monitor the environment for its client-facing intelligent data platform solutions responsible for optimizing the operational performance of its customers’ power generation assets. “That would be a big deal.”

“Working with apiphani is helping us lay a strong foundation for the future,” said Thorburn. “Our new parent company, Hanwha, is positioning itself as the leading provider in the full lifecycle use of clean hydrogen, and PSM is a key part of that strategy. Apiphani and AWS are providing us with the reliability, flexibility, and scalability needed to execute today and prepare for this future.”

As for moving SAP to AWS, Thorburn has one last piece of advice. “The most important thing about the move of SAP to AWS,” he concluded, “is to go with a trusted partner that has some ‘skin in the game.’ For us, apiphani was that trusted partner.”

About apiphani

Apiphani is a global leader in automated mission-critical application management. Founded by recognized industry leaders, apiphani is dedicated to helping businesses minimize the effort and risk associated with managing tier one applications. By integrating decades of experience with Deep Automation™ and machine learning, apiphani is able to drive extreme efficiency and reliability in support of its clients’ most vital workloads. For more information visit www.apiphani.io

