Clients First Delivers ProMRO for STS Aviation and Airline Maintenance

STS
Aviation Group

ABOUT STS AVIATION GROUP

Based in Jensen Beach, Florida, the STS Aviation Group is a diversified company that specializes in support services for the aerospace industry through its four divisions: STS AeroStaff Services, STS Engineering Solutions, STS Line Maintenance, and STS Component Solutions.

Founded in 1985, the company provides aircraft technician staffing services, engineering and DER support service, aircraft component and supply chain management, and line maintenance services for on-the-ground aircraft. Since inception, the company has more than quadrupled its size and its strategy continues to include meeting the ever-increasing needs of the aerospace industry. The company operates in the U.S., UK, Canada, Mexico and Ireland.

Challenges

STS Aviation Services has grown rapidly from providing mechanics to airplane maintenance organizations to offering a full suite of maintenance and repair or MRO services. Its growth has come organically as well as through multiple acquisitions in the U.S. and abroad. For many years, the company operated on a legacy financial system and countless spreadsheets, assorted applications, and databases that it eventually outgrew.

The client/server based legacy financial software, Solomon, didn't provide any of the maintenance and repair operational processes that STS needed. When executives searched for a new financial system, they found very expensive ERPs for the airline industry but nothing specific for MRO operations. Although applications tailored for MRO existed, none had the financial accounting functionality of an ERP.

"Our old client server application couldn't satisfy our needs, especially when we added a third hangar two years ago, and wanted to do C-checks and D-checks," says Rob Wire, Vice President of Information Technology, STS Aviation.

COMPANY

Name: STS Aviation Group

Location: Jenson Beach FL

Industry: Aviation

Employees: 500

Revenue: $230 million

KEY RESULTS

- Acquired all-in-one, tightly integrated ERP system with maintenance, repair and overhaul aviation functionality
- Gained real-time reporting with customizable dashboards
- Saved time, eliminated importing and exporting data
- Gained customized project templates, eliminated manual, error-prone data entry
- Gained critical business insight into billable hours and operations
- Developed easy-to-use kiosks/apps allowing engineers and mechanics to quickly sign in, record actions, and track tools
- Significantly streamlined operational processes

C and D-Checks are part of the routine maintenance all airlines make on all planes to comply with Federal Aviation Administration rules. This maintenance includes repairing known problems, replacing parts after a certain time period, repairing defects and performing scheduled repairs, among other things. There are four levels of high-level maintenance, which are known as the A, B, C, and D-checks, with C and D-checks requiring extensive maintenance.

"These checks can take anywhere from 7 to 25 days where we disassemble an aircraft and perform routine maintenance, which could have 1,500 task card items," Wire explains. "We repair the items and then reassemble the aircraft, have it inspected and then release it back to the airline. During our maintenance, we might run into non-routine problems that have to be recorded, fixed and inspected."

As you can imagine, these checks are highly complex, and require critical compliance and oversight. It's up to the airlines to implement and conduct maintenance; some do it in-house while others subcontract to MRO providers like STS. All work has to be inspected and approved and all tools need to be tracked.

More Efficient Operations and MRO Functionality Needed

STS tried to use multiple applications including AvPro, Chronos and Access, to handle all of the various tasks, which required manually typing information into each program and wasted time. Quotes were created in one system, inventory was housed in another, and time keeping required a third system. There was also a system for checking tools in and out. Any reporting done required exporting and importing data into spreadsheets.

In addition, mechanics hand wrote information on a task card, handed the card to someone else to enter it into the system. When tasks were completed, information was put into a binder so a supervisor would know when to check the work. The supervisor then had to notify an inspector if all the work

was completed correctly so the inspector could certify the repair or replacement.

Then the inspector notified the supervisor that the equipment was certified. The supervisor notified accounting, which invoiced the customer, which was time consuming depending upon the customer's program or contract.

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It was difficult to assess how efficient workers were or determine billable hours per task or project as opposed to paid hours. "We were doing manual data manipulation outside of the system and trying to find anomalies," Wire says. "It took a lot of operations time and planning to try to keep up with that."

The executive team knew they could be more efficient if all STS data was housed in one system, and set out to find one.

Acumatica: Flexible ERP with Open API

STS briefly flirted with developing its own custom solution but then discovered Acumatica Cloud ERP, which had a robust API that allows third-party developers to create custom software. Even better, STS learned that an Acumatica partner, Clients First Business Solutions, had developed a maintenance and repair application, and the company was open to further developing functionality specific to STS and the aviation industry.

"There are alternatives out there, but the large ERPs are geared to airlines not the MRO industry," Wire

says. "Not only do those large packages run in the multi-millions, but they also take $2 million to $6 million to implement." Those airline applications typically only cover the front office, he adds.

"We implemented Acumatica, which was much more cost effective and tailored it to our needs," he says. "We were excited about Acumatica's framework and robust API, and since we have written some custom software for line maintenance and engineering, we wanted to extend it to the ERP."

STS implemented Acumatica Cloud ERP on its own private cloud in compliance with FFA requirements. STS has its own on-premises redundant data center and server farms in the U.S. Acumatica Cloud ERP was affordable; rather than charging per-user, the ERP company charges based upon transaction volume. That's highly important for large firms in high-growth mode.

Then Clients First developed software to handle STS Aviation's specific MRO requirements. Clients First worked with the STS team and completed an analysis of requirements and processes. STS Aviation needed a central check-in system so mechanics and engineers could clock in the various tasks they worked on in a day, a process that needed to be connected to a specific project, plane type, and invoice. The system needed to be flexible so mechanics could add information about non-routine items, and time spent could be allocated correctly to specific tasks.

ProMRO Aviation: Highly Efficient System for Airline MRO

Although the Covid-19 Pandemic slowed development, Clients First created the aviation features that STS needed and envisioned in less than a year. "Clients First developed astounding software that rivals the larger packages of the airlines," Wire says.

"The Clients First team did an exceptionally good job," he adds. "They brought the right resources to bear, worked long hours, and came on site to help implement the software successfully. They have an exceptional track record of success."

Seamless Integration with ERP

ProMRO Aviation is tightly integrated with Acumatica, and having all data in one system made STS Aviation much more efficient.

"We established custom workflows for the work-order task cards and business processes, so we added accountability and efficiency that we couldn't do in the old system," Wire says. "We're now tying our cost of labor to our time keeping system more directly. In the old system it was not easy to tie paid hours to billable hours, but now it's tightly integrated."

"ProMRO Aviation works hand in hand with all Acumatica functions – AR, AP, Inventory, and with the project accounting, budgeting and control. We gained the ability to take a whole project from CRM to quoting to reusing project templates to modifying them right through to tracking the work and invoicing, all without any dual entry," he adds. "We're now highly efficient.

With service templates, STS can create a quote or work order with a 1,500-item check or program, copy it to the appropriate aircraft type, modify as needed and instantly have a quote that, once approved by a customer, flows automatically into a work order without any additional data entry.

The company has cut the time it takes to run reports by eliminating all the manual data entry into separate systems. "Now everything flows into reports, we can pivot data in Excel and quickly see exceptions," Wire says. "Our report writing is major win, and we can do a lot with Power BI."

Kiosks and Barcodes Save Time

The new shop floor system, the Kiosk, features easy-to-use navigation and is always up. The old system on the shop floor was Citrix-based with remote connections to the data center. "There was a performance gap there, and we incurred extra costs and challenges to deliver it 24/7," Wire says.

The goal was to minimize the time mechanics or engineers spent walking up and down stairs to get to various parts of the plane. It also needed to be extremely easy-to-use so mechanics didn't waste time fumbling through the system.

Mechanics, supervisors, and inspectors scan their badges at a Kiosk, which automatically displays tasks to complete, to inspect and upcoming projects, among other information. When a repair item is complete, notification is automatically sent to a supervisor, and once he notes it as correct, it automatically flows to the inspector and so on. Mechanics also use the Kiosk to check tools in and out and check a tool's calibration.

The system is integrated with Centrik for certification tracking and takes preventative measures if say a mechanic who only works on Boeing Co. planes has been accidentally assigned to an Airbus. Additionally, the system tracks parts used against inventory.

"The Kiosk is simple to use, has big icons, is easy to read and shows if an inspection is complete or rejected," Wire says. "We used to track inventory in Excel and Access, but now it's kept automatically and we can send emails to customers about what we used from their inventory, how much they have left, and how much they have to order based on project approved."

Clients First, ProMRO Competitive Advantages

STS Aviation and Clients First are now rolling out ProMRO Aviation to additional STS locations, which now number 40. The company recently added base maintenance services in Europe with facilities at Newquay (NQY) and Birmingham (BHX) in the United Kingdom. In addition, STS Aviation Group added to its aircraft interior service offerings by acquiring Airbase Canada based out of Montreal.

STS Aviation's global line maintenance segment now operates 29 active line maintenance stations in the United States and the Bahamas, seven stations in the UK and France and three in Canada. Each new acquisition gets set up on Acumatica, and ProMRO is up and running in Florida. ProMRO is slated to roll out next in the UK.

"With ProMRO, we now have a powerful, highly efficient MRO application that can grow with us," says Wire. "Anyone deploying it in aviation can gain a similar competitive edge."

The Right Partner, The Right Fit, and No Surprises — Clients First Business Solution

Clients First is more than a name, it is a culture at our company. Our goal is to provide value on every single project and service ticket. We know that ERP systems and your processes can be a complex combination that requires special attention and understand that it's important to get you the right resource to help you when you need it.

Whether it's an implementation run by your team with our assistance as needed, or full service engagements, we will provide any level of service you desire with an experienced team. We are ready to put your business needs first.

Get to know more about us here.

About Clients First Business Solutions

Business software should increase productivity, improve profitability and easy for staff to use. Most of today's ERP solutions are good at finance and have horizontal niches for maintenance, repair and overhaul aviation and heavy equipment as well as manufacturing. This makes searching for a software solution more about what the implementation partner can do to help you get the most out of the system. That is why Clients First is not a software company; we are a business solutions and services company.

Developers of ProMRO for Acumatica Cloud ERP and Dynamics 365