

**Velosio**<sup>®</sup>



CLIENT SOLUTION CASE STUDY

**Sutphen Corporation  
Builds a Solid Solution for  
Growth with Microsoft  
Dynamics 365 Finance  
and Supply Chain  
Management and AXIO  
from Velosio**



**SUTPHEN**

# Overview

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## Software Solutions:

- Microsoft Dynamics 365 Finance and Supply Chain Management
- Velosio's AXIO for Dynamics 365 Finance and Supply Chain Management
- Microsoft Power Platform

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## Challenges:

- Replace ineffective legacy solution, Microsoft Dynamics AX 2009
- Manage custom manufacturing process and parts
- Eliminate heavy customizations
- Replace manual processes

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## Benefits:

- Streamlined operations with one unified system
- Improved supply chain management
- Capitalized on cloud technology
- Efficiency gains

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## Company Overview:

Sutphen Corporation has been the largest family-owned fire apparatus manufacturer in the nation since 1890.

**Industry:** Manufacturing

**Employees:** 306

**Headquarters:** Dublin, OH

**Annual Revenue:** \$85.6M

# Background

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Sutphen is in its 133rd year of operation, making it the oldest continuously owned and operated fire apparatus manufacturer in the country. Never reorganized, owned, or operated by anyone other than a Sutphen, the family atmosphere is apparent when you walk through the doors of its facilities. When customers purchase any Sutphen custom fire apparatus they get the highest quality heavy-duty custom truck available. From limited option program trucks to its most complex Industrial Aerials, and everything in between, Sutphen is heavy-duty all the time. Sutphen's unique family-engineered Aerial Ladder Truck mid-mount design provides superior weight distribution on chassis, extraordinary maneuverability, and easy access to the pumper-like hose bed, as there are no hose chutes or turntable in the way.

Years ago, Sutphen implemented Microsoft Dynamics AX 2009 to support their very successful business, but the legacy software

became slow, unreliable, and was eventually left unsupported by Microsoft. Factory workers had to write things down on paper, find a computer with AX 2009 on it, and manually enter data – an unsustainable process. Sutphen's business is project-centric; every vehicle and piece of equipment is custom-assembled for municipalities all over the US. Every fire truck build starts with a chassis and over 120,000 different potential parts, and the finished product is set up as a project which lasts the lifetime of the truck – 20 or so years – for service and parts. To better serve its customer base and support this project-centric manufacturing process, Sutphen customized its AX 2009 system with over 50+ customizations. This made upgrades costly and difficult, so the organization often chose not to upgrade.



# Solution

When it was time to move to the cloud, Sutphen needed a partner with a proven implementation team who would understand the nuances of their complex AX 2009 implementation. Because of Velosio's 30-year experience with Microsoft, including AX, its national reach and local presence in Ohio, project-centric experience with Microsoft Dynamics 365 Finance and Supply Chain Management, and its AXIO solution for project-based financial requirements, Sutphen found that Velosio was the perfect fit for the job.

Velosio recommended that Sutphen upgrade to Microsoft Dynamics 365 Finance and Supply Chain Management - built to help organizations move beyond transactional financial and supply chain management to proactive operations that enhance decision making, protect revenue, mitigate risks, and reduce costs.

For Sutphen, Microsoft Dynamics 365 Finance and Supply Chain coupled with AXIO from Velosio would reduce implementation costs while increasing available project management features, simplify the user experience, and improve corporate performance. By leveraging AXIO, Sutphen could realize a reduction in the total cost of system ownership by 30% or more and cut down on customizations by gaining access to over 400 processes grounded in best practices and garnered from thousands of deployments. Additionally, Velosio developed a Microsoft Power App to manage Sutphen's Kanban lean manufacturing process with handheld scanners. A Power BI dashboard was created to track the progress of truck builds on the manufacturing floor along with additional dashboards.

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**Because of how complicated these trucks are, it used to take up to a day to explode a BOM in AX, and now we can do it in 15 minutes no matter how complicated the truck is.**

Steven Phelps, Owner and Head of IT Business Systems Administration and Cost Accounting

# Deployment and Training

Velosio deployed the solution at Sutphen in 2020, with much of the work being completed remotely, for the safety of Sutphen employees. Velosio wrote a journal merge customization to speed up the twice-yearly inventory counting process. In the past, after inventory was turned into accounting, each of the 120,000 items had to be keyed line by line and then rekeyed into a journal entry. Velosio merged this process, so it's only entered once. "We knew that we wanted to avoid as many customizations as possible

and adapt our teams to the product itself,” says B.J. Laney, Corporate General Manager for Sutphen. “By avoiding modifications, our upgrade complexity and cost would be lowered,” continues Laney.

The training process at Sutphen was a train-the-trainer approach, as well as time spent one-on-one with team members. Velosio continues to support the solution at Sutphen; updates are now streamlined and automatic.

## Benefits

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The biggest benefit for Sutphen is moving from an unsupported, legacy product to a modern, cloud-based solution which eliminates the need to manage costly on premises servers and provides continuous feature updates without having to re-work any of their custom modifications. Velosio’s AXIO solution includes two managed updates per year. Many manual processes and workarounds have been automated, saving time and costly errors. “There’s a big ROI on the actual projects themselves,” says Steven Phelps, Owner and Head of IT Business Systems Administration, and Cost Accounting. “We have seen massive time savings in scheduling projects. Exploding the bill of materials is much quicker. Because of how complicated these trucks are, it used to take up to a day to explode a BOM in AX, and now we can do it in 15 minutes no matter how complicated the truck is,” continues Phelps.

“I think the system is very user friendly,” says Rachel Carroll, Bill of Materials and Data Systems Analyst. “I enjoy several options that the system offers, like documentation and attachments, so you don’t have to go track down someone to find an invoice or receipt or training program documentation. It’s just awesome to have that and then also there are pictures available for the parts, so you don’t have to go physically go look at a part down in the warehouse,” continues Carroll.

“We have now completely moved over to a Microsoft-based platform,” says Phelps. “All of our meeting rooms are on Teams, and that’s one of the really nice integrations is how well it works with Excel. All sorts of things that we weren’t previously able to do in AX 2009 that have become absolutely amazing with D365,” continues Phelps.

### The system also:

- ✔ Reduced heavy customizations that hindered upgrades
- ✔ Managed Kanban lean manufacturing process
- ✔ Increased user efficiency
- ✔ Improved cohesiveness of Microsoft stack with two-way integration to Microsoft 365
- ✔ Saved a ton of time per week/month with batch processing
- ✔ Better aligned bill of materials with product configuration
- ✔ Shortened configuration and lead time for trucks
- ✔ 81% decrease in the time it takes to post monthly inventory
- ✔ Eliminated third party modules with extended capabilities in Dynamics 365 Finance and Supply Chain
- ✔ Quicker month-end closing process

# Power Platform



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Sutphen utilizes Microsoft Power BI and Power Automate in a number of ways, such as creating supplier scorecards to track whether purchase orders are late or upcoming, and sending automated emails to stay on top of it. “Power BI takes what you wish Excel would do, and then provides an ability to actually do it so that is really cool to see the next level where we can integrate our inventory,” describes Jonathan Corsetti, Transformation Manager. Power Automate is behind the Kanban manufacturing management. Kanban cards create purchase orders, transfers, and purchase orders. When the card is scanned, it automatically creates a purchase requisition in Dynamics 365 Finance through Power Apps and Power Automate. Then a pick ticket is created to give the warehouse team the information they need to fill the order. “We can now use Power BI extensively since we’re able to data mine from the cloud directly,” says Yoseph Setiadi, Operations Manager. “So, our team can determine the actual cost of a project along with its materials,” continues Setiadi.

## Upcoming Solution Plans

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For Phase two of the project, Sutphen has a laundry list of components they wish to add to the solution. “I think we’ve really just scratched the surface of what the system can do,” says Laney. “We’re really excited about the future and what this system could do for us, from advanced warehousing, the service modules and CRM. The Sutphen team is reviewing Microsoft Dynamics 365 Customer Engagement, to better serve clients. “At Sutphen, our niche is customer intimacy,” says Laney. “We know our customers better than anyone else in the market. We treat people like people. And it’s a top priority for us to maintain that no matter what,” continues Laney.

Sutphen is also considering Microsoft Dynamics 365 Field Service to streamline truck repair and support. They would also like to capture raw data in Azure Data Lake Storage and utilize Microsoft Azure Synapse for analysis. The team is also looking to add advanced warehouse management to further correlate inventory with demand based on historical trending data.



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