



An ICG Case study

From Rooftop to the Cloud and Back

Mule-Hide Products Co. Delivers a High-Performance, Responsive Website Update Focused on User Experience

March 30, 2018



The Need

Mule-Hide Products Co. is a leading supplier of roofing products for commercial projects. Even though their website was still working, the design was showing its age. And over the last few years, the company's portfolio of products expanded to more than 3,000 SKUs. As the amount of data grew, navigating and accessing information became slower and less intuitive. Mule-Hide customers rely on having fast and easy access to product documentation, architectural detail diagrams, and product safety data sheets. All of that content had to be managed across product lines and things were becoming more complex.



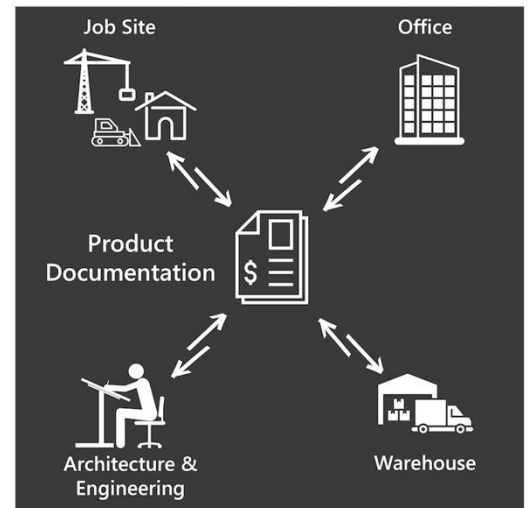
Another sea-change had occurred at the same time. The revolution in mobile devices meant that more customers wanted to access the website and product content from tablets and smartphones. But the old Mule-Hide site was built before that trend had really taken hold. So many existing web pages were not responsive and optimized for mobile viewing.

Finally, the existing solution was built without the benefit of a modern Content Management System (CMS). This made website changes and product updates more time-consuming and prone to error. It was time to update to keep pace with technology and the changing needs of the construction market.

Step One: Defining the Need

Cory Ertmer – Director of Marketing for Mule-Hide – was given the task. He formed an internal, cross-disciplinary team to lay out the requirements.

- The new solution needed to be easy to change, update, and manage by the existing team – even those with little or no technical background.
- Every page of the new website had to be fully responsive, reflect modern styles, and look great across all mobile devices and platforms.
- Mule-Hide customers access important product information from a wide variety of work environments via computers and mobile devices. So every page, image, product sheet, and specification on the new site needed to load fast.
- Once customers found the right product, they needed an easy and fast way to find local distributors.
- The solution needed to be flexible to adapt to changing company needs and be able to scale with company growth.



“Our product documentation is used by architects and engineers, construction teams at job sites, our warehouse and distribution partners, and our home office. Fast, easy access to the latest versions is critical to our success.”

— Cory Ertmer



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Step Two: Choosing a Technology Partner

Mitchel Sellers and the team at IowaComputerGurus (ICG) came highly recommended and it was clear early on that they were the most qualified. More than just their extensive experience building business website and software solutions, ICG proved adept at working with corporate teams at every level and creating buy-in by being sensitive to the business needs of stakeholders in every department.

“Mitch was great. He worked really well with every department at Mule-Hide and with our corporate office to achieve enthusiastic buy-in by delivering on their needs while providing direct answers, options, costs, and benefits.”

— Cory Ertmer

The Solution

ICG worked closely with the Mule-Hide team to fully scope out the project. Then they looked for other organizations with a large number of products to determine how they delivered them effectively. But they didn't limit their search to businesses in the construction and material supply industries. They looked at a broad range of website solutions from apparel to consumer goods and beyond. This included examining the creative product solutions from companies like Nike, Home Depot, Adidas, Nixon Watches, and more. In total they examined how more than thirty-five product-centered businesses delivered information for inspiration.

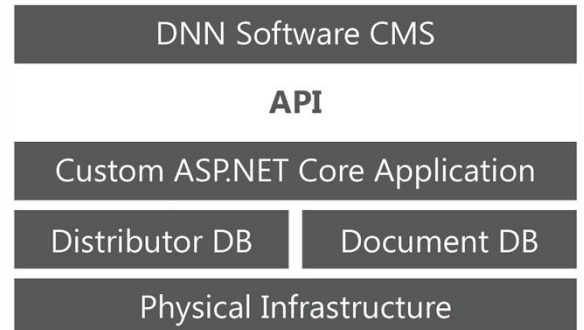
This detailed review provided some important insights that changed the project for the better:

1. Mule-Hide needed to radically rethink the way information was accessed and displayed. The best course was to align all content by product with a consistent naming and database schema.
2. Since the inventory of documents, images, and videos supporting the products was so large, a central document repository was called for – separate from the content management system (CMS) operating the website. This would allow the CMS to deliver primary website content and navigation efficiently while a purpose-built backend could deliver the document and image assets quickly and securely.



A Winning Combination of Technology Platforms

ICG recommended using DNN Software for the website CMS, building the back-end structure on the ASP.NET Core Framework with Azure SQL databases, and hosting the entire solution from the Microsoft Azure public cloud.



This combination delivered several significant core advantages to the Mule-Hide solution.



Benefits of DNN Software

- The DNN Platform is a mature, business-class solution and the leading CMS built on ASP.NET technology. This gives it wide acceptance and support community.
- It has advanced roles and permissions features ideal for environments when website security is a priority and task management is distributed over larger project teams.

Benefits of the ASP.NET Core Framework

- Mule-Hide had invested heavily in Windows and .NET technologies over the years. This meant that existing legacy systems were likely to have a smoother update and integration path going forward.
- The ASP.NET Core Framework is the latest development framework from Microsoft, but it has also been in full production environments for more than two years. That means that the solution would not only be built on a low-risk, proven technology stack, but it would also have a superior supported lifespan.
- The ASP.NET Core Framework was designed with mobile and cloud delivery in mind. This means that an emphasis has been placed on speed, security, and the ability to publish directly to the cloud.
- ASP.NET Core is one of the first fully cross-platform frameworks. It operates on all major web delivery systems and supports a robust Application Program Interface (API). This means that building Mule-Hide's document repository and distributor locator system on this framework – external to the website CMS – will allow those applications to interface with other CMSs, other websites, and other external systems if needed in the future.

“We built an entirely new back-end database and document repository for the site using ASP.NET Core because – when you're dealing with high volumes of data and documentation across the mobile web – speed matters. Now document and location searches run blazing fast and the user experience is great.”

— Mitch Sellers

Benefits of the Microsoft Azure Public Cloud

- Since major healthcare, financial, and governmental organizations have already adopted the Azure public cloud, compliance, security, and privacy features are already built in.
- Azure has a global footprint and significant edge locations across the United States and Canada. This ensures seamless and fast delivery across all the geographic zones that Mule-Hide serves.
- As an official Microsoft Azure Solutions Provider, ICG can provide inside administrative access and support without needing additional permissions or credentials.



Implementation

From beginning to end, the project took less than five months. ICG even came on-site to train the Mule-Hide team and personally assist with final questions and needs. The new Mule-Hide website solution went live in November 2017 and has received extremely positive reviews.

The Results

The new Mule-Hide Products website went live in November 2017 – exceeding all requirements and delivering additional benefits beyond the initial specifications

- The new website is fully responsive and mobile-friendly. Mobile user page views tripled within weeks – from 10% to more than 28% of all traffic.
- The new back-end code built on the ASP.NET Core Framework has greatly increased website speed, yielding numerous benefits:
 - Faster speeds coupled with better navigation have increased user engagement. User engagement – as measured by time on site – has jumped 21%.
 - Increased loading speed and the new site organization has greatly increased organic SEO value. Total pages indexed have risen from 55 to 254.
 - Previously, some pages failed to rank at all in Google searches. Now, Mule-Hide page results are appearing on page one for major product categories.
 - The new “Find a Rep” tool delivers search results instantly – helping customers get the products they need faster than ever before.
- Product names are aligned across all IT systems – including sales, marketing, accounting, and more. This unifies terminology, eliminates errors, and speeds up invoicing and rebate processing.
- The DNN CMS platform – coupled with the integrated custom back-end solution – has made making changes and updating the site easy and fast. Administrative control is now delegated to the entire web team and the ability to securely add and update products quickly makes the website more responsive to customers and the needs of the business.



Mobile Traffic



Website Engagement

“We completely re-engineered how customers find information – product sheets, MSDS info, marketing materials, architectural and even engineering details and specifications Now the entire site is product-driven, and it’s much better.”

— Cory Ertmer



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About Mule-Hide Products

Mule-Hide has been a trusted name in roofing materials since 1906. In 1985 the Mule-Hide brand was re-born to focus on top-quality single-ply roofing, Poly ISO insulation, and related accessories. As a leading provider of low-slope roofing products, the company operates from a 21,000 square-foot campus in Beloit, Wisconsin. You can learn more about Mule-Hide Products at: mulehide.com

About ICG

IowaComputerGurus (ICG) is a leading provider of custom application solutions built upon the Microsoft .NET Technology stack; including all major CMS platforms, MVC Core, and the Azure Cloud. With an emphasis on web technologies, performance optimization, security, and compliance projects, we set ourselves apart by placing a strong focus on quality and customer service for the life of the project. Learn more about us at: iowacomputergurus.com

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