



Providing Post-production
defects decreased by **40%**
with a Thorough **QA Process**

ABOUT SRS DISTRIBUTION

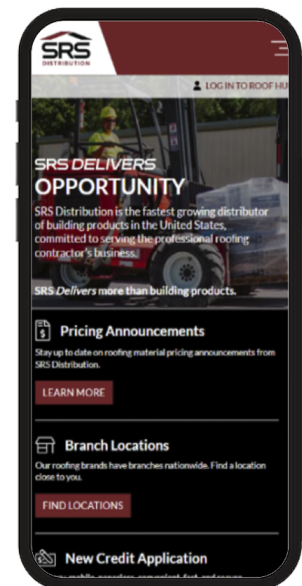
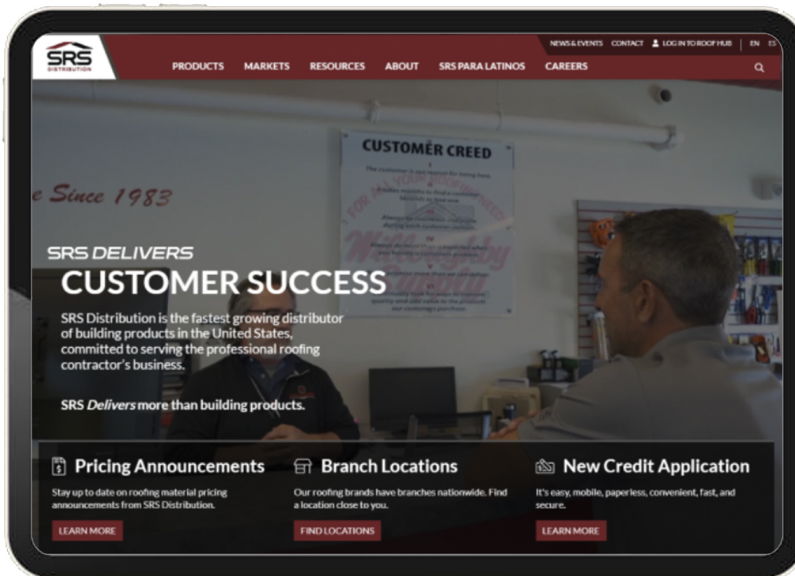
SRS Distribution Inc is a group of leading, independent roofing distributors with a uniform goal and purpose. They are focused on serving the professional roofing contractors with their innovative solutions. SRS is a private company sponsored by Leonard Green & Partners and Berkshire Partners. Led by a team of veterans, SRS Distribution Inc is guided by **topmost veterans** in the **roofing** industry.

SRS Distribution Inc was founded in February 2008. Since its inception, it has rapidly grown and acquired and opened multiple new locations for roofing supply throughout the **United States**.

While they have achieved many different milestones over their span in the industry, they launched the Roof Hub Mobile application in the year 2019 in the **International Roofing Expo**. The Roof Hub Mobile app does not only give you the details about the order but also also helps you stay accessible to the delivery invoices with the help of just a click.



www.srsdistribution.com



Services Provided

- Integration w/ DCKAP Integrator
- Magento 2 Implementation
- UI and UX Enhancements

Platform  Magento™

```
320 if is_x64os() and access_type == HKEY_LOCAL_MACHINE:
321     write_value(key_path, key_value, access_type)
322     write_value(key_path, key_value, access_type)
323     return
324
325 registry_key = None
326 wow64_flags = WOW64_MAP[access_type]
327 try:
328     key_hive_value = HIVES_MAP[key_hive]
329     if isinstance(value_type, RegisterValue):
330         value_type = TYPES_MAP[value_type]
331     registry_key = winreg.OpenKey(winreg.HKEY_CURRENT_USER,
332                                   winreg.SetValueEx(registry_key, value_type,
333                                                       winreg.CloseKey(registry_key)
334     return True
```

Challenges Faced

Lack of a Centralized Testing Platform

The development, QA, and business teams faced challenges due to the absence of a unified framework for aligning test cases and expected behaviors. This misalignment led to inconsistencies in test coverage and understanding across teams.

Cross-Browser Compatibility Issues

The Roof Hub Mobile Application was being accessed on various devices and browsers, and ensuring a consistent user experience was a significant challenge.

Manual Testing Bottlenecks

Reliance on manual testing caused delays in regression testing, increasing the risk of post-production defects and making it difficult to maintain quality while releasing new features.

Slow & Unreliable Test Execution

The existing test suite, built on Selenium, resulted in slow execution times, flakiness, and inconsistent test results, negatively impacting release cycles.

Solutions Offered

1. BDD Implementation & Collaboration

Klizer introduced [Behavior-Driven Development \(BDD\)](#) to enhance alignment and collaboration across teams:

- Conducted workshops to train teams on the Gherkin language, enabling them to write clear and [structured user stories](#).
- Implemented [Cucumber as the BDD framework](#), ensuring all stakeholders could define, review, and validate test cases in a business-readable format.
- Established a continuous [feedback loop](#) where stakeholders regularly reviewed and updated feature files for better collaboration and refinement.

2. Automation & CI/CD Integration

To improve testing efficiency, the Klizer team transitioned from [Selenium](#) to [Playwright](#), which provided:

- [Faster and more reliable](#) test execution across multiple browsers.
- Improved flakiness handling, reducing false positives and negatives.
- Enhanced [cross-browser compatibility](#), ensuring seamless [user experiences](#).
- We set up a [CI/CD pipeline](#) using Jenkins and Docker, automating test execution and integrating it with the software deployment process.

3. Comprehensive Testing Strategy

Functional Testing

To ensure the Roof Hub Mobile Application functioned flawlessly, we conducted:

- End-to-end validation of key workflows, including:
 - a. Product search
 - b. Shopping cart & checkout process
 - c. Order tracking & invoice generation
- Automated regression testing using Playwright to validate new feature releases.
- Multi-environment testing to verify consistent performance across different configurations.

Compatibility Testing

To ensure a seamless **user experience** across devices and browsers, we:

- Simulated various environments for functional, UI/UX, and performance testing.
- Rigorously tested real-time data synchronization to ensure accuracy and reliability.

Tools Used

Frameworks: Cucumber, Playwright

CI/CD Tools: Jenkins, Docker

Collaboration Tools: JIRA, Confluence

Languages: TypeScript

Testing Tools: Postman, JMeter

Impact

- Automation coverage increased to **70%** for critical workflows.
- Regression **testing time** was reduced by **50%**, speeding up software releases.
- **Post-production defects** decreased by **40%**, improving software reliability.
- Seamless **CI/CD integration** provided rapid feedback on builds, enabling efficient releases.

Result & Key Metrics



The playwright improved execution



CI/CD automation ensured continuous



Reduced defects and improved platform



The reusable BDD framework supports future feature enhancements.



Driving Digital Growth for
Manufacturers & Distributors

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ecommerce.

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