

A Case Study of **Lunewave** Self-Driving Car Sensor Portal



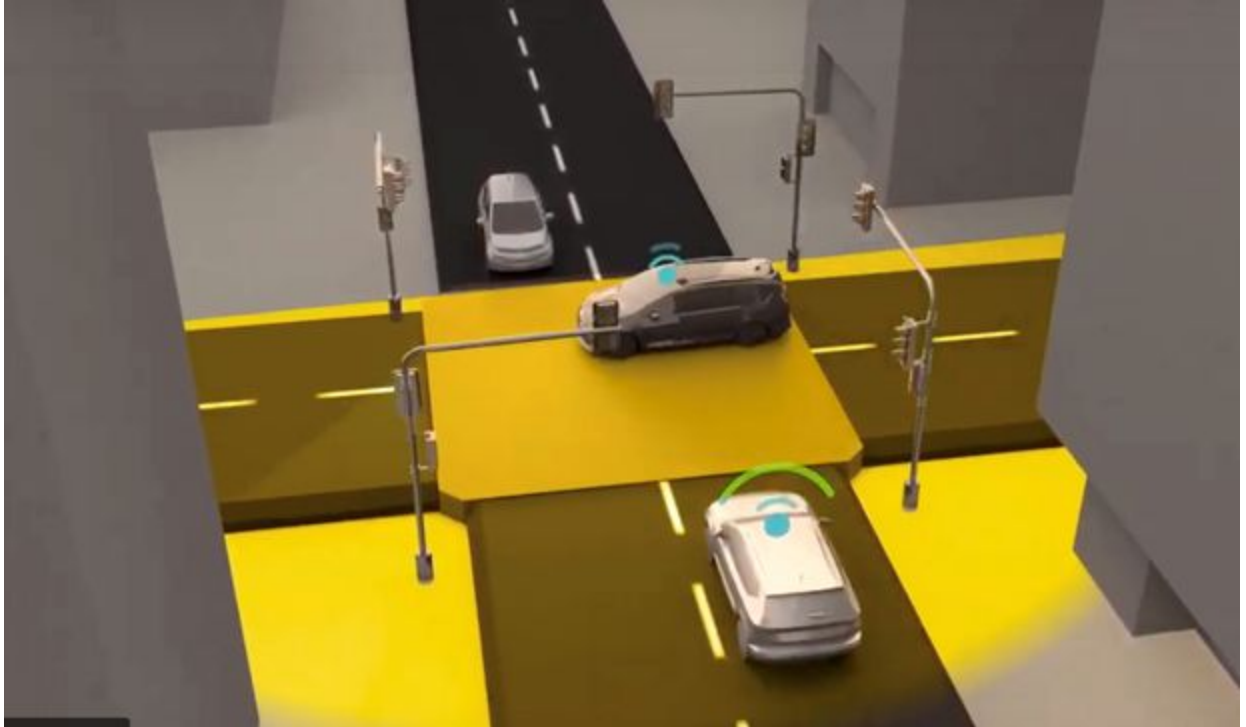
About Lunewave

Lunewave manufactures cutting edge antenna and sensor technology for autonomous vehicles, wireless communications, and drones.



Lunewave offers custom-manufactured “Lunenburg lens” technologies that allow self-driving vehicles to detect people, cars, roads, sidewalks, trees, and many other obstacles that need to be tracked to ensure collision-free transport. Lunewave offers a number of different lens types and has patents on numerous lens interfaces and partnerships with research facilities. They were recently awarded a \$5 million seed investment.





The Challenge

As a growing company, Lunewave needs to be able to attract top engineering talent, find investors, educate R&D facilities about the product, showcase the latest news articles about the technology, and provide credibility by showcasing the company and leadership team.

Lunewave had no web development expertise on staff and previous attempts at generating a web portal with engineering charts yielded unflattering results. Lunewave was in talks with investors and had no website to point to. They had a technical walkthru on YouTube but no destination to showcase it. They had PDF's of technical whitepapers and important news articles for the industry, but no location for publishing

Likewise, Lunewave also had a previously administered "JazzHR" Applicant Tracking System (Recruiting Software) that had to be seamlessly integrated into this new portal. The Lunewave portal needed to be able to retrieve job postings via a feed from this external resource and allow users to apply for open positions. The back-end needed to allow the Lunewave staff to read and approve/decline applicants.

Lunewave needed a web-portal with modern features:

- Responsive-design for cross-platform compatibility
- Client-side html5 with CSS-transforms
- Seamless integration with "JazzHR" Applicant tracking system
- Search-engine optimization



- Global CDN deployment
- WAF security measures
- A 'Mobile-first' architecture
- Retina-display-renditions (higher resolution imagery)
- Sticky headers (persistent navigation)
- Integrated news blogs
- Geo-targeting and localization
- Remote Auto-backups
- Modern back-end to allow the Lunewave staff to make changes to text and layouts.

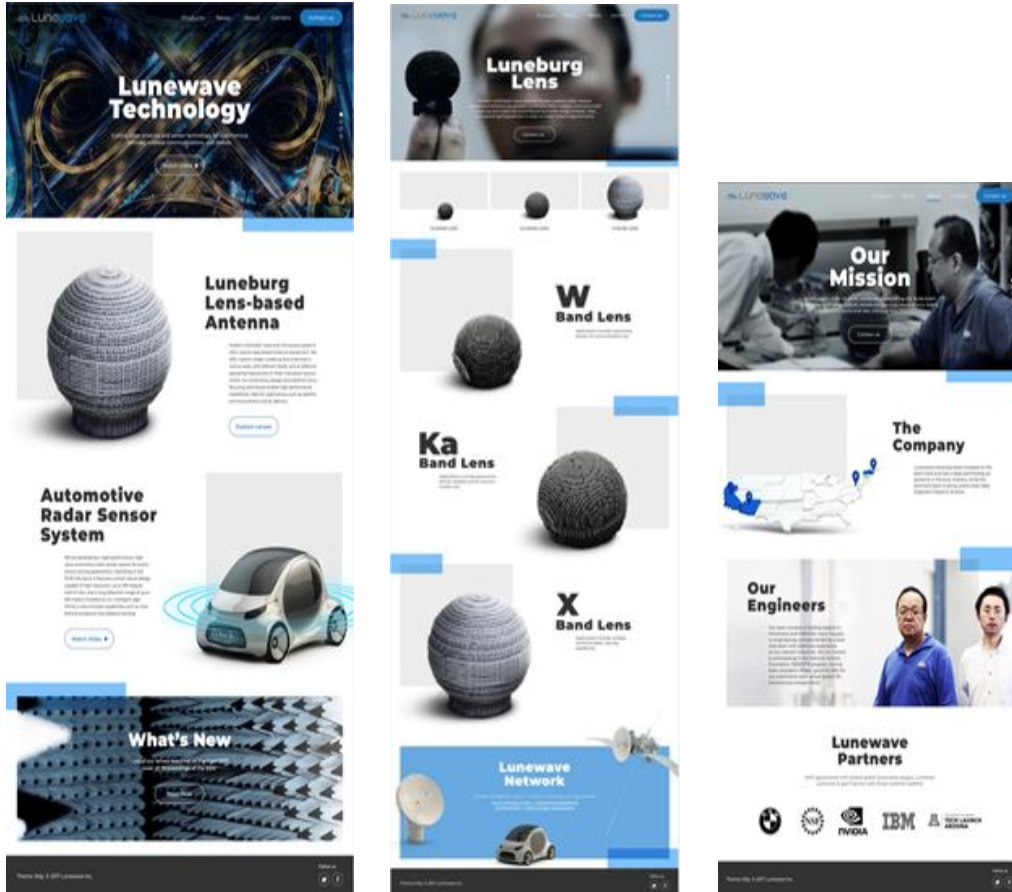
The Solution

After researching different Cloud companies, and listening to valued opinions of IMPLERUS Cloud Solution Architects, Lunewave quickly settled into using AWS as their Cloud Computing Service Provider.

IMPLERUS helped Lunewave by designing a solution that was needed for their versatile application.

IMPLERUS ramped their solutions quickly using:

1. Amazon Lightsail to host the latest Wordpress engine
2. "Elementor Pro" within Wordpress to provide a drag-and-drop editing tool for Lunewave page layout and text-modifications.
3. Amazon CloudFront to provide global CDN distribution and decrease latency.
4. AWS WAF to protect Lunewave from SQL-injection, Denial-of-Service attacks, and other security measures.
5. Amazon Route 53 to manage domain information and routing
6. Wordpress responsive-design logic and custom plugins to handle cross-platform browser compatibilities, sticky headers, SEO optimization, blog integration, remote-backups, localization, and mobile-first breakpoints.
7. Coding to parse JazzHR career/employment feeds and render results within the Lunewave user-interface.



The Benefits

Lunewave was pleased with the results of IMPLERUS's AWS hosting, design, development and launch. Not only was Lunewave able to showcase their open engineering positions, but also spread the messaging of these job openings to other social networks, automatically. In addition, Lunewave now has a professional-looking web-portal with the latest \$5 million investment news, whitepapers for R&D facilities, a section about the people and the company, a contact area and pages to showcase the most recent lens-sensor technologies.

Lunewave has fast-loading globally-cached pages thanks to Amazon CloudFront, and a portal that is appropriately sized across all browsers and devices thanks to the responsive-design features of the Amazon Lightsail/WordPress instance.

Lunewave staff can now make most text and cosmetic additions/changes on their own using the drag-and-drop editing capabilities of the Lightsail/Elementor Pro plugin.

IMPLERUS is hosting Lunewave's web portal within it's AWS accounts, and is pleased to have Lunewave among it's valuable business relationships.



About IMPLERUS

IMPLERUS Corporation is a Northern Virginia-based AWS Advanced-Tier IT consulting and services firm dedicated to providing innovative solutions to the Intelligence Community, public and private-sectors.

We design, build, integrate and manage solutions for cloud-based applications and system architectures.

Our clients range from Fortune-level global VC firms to government intelligence and defense agencies through our successful relationships with satisfied clients over 25+ years.

For more information or to contact IMPLERUS, please visit us at www.implerus.com