

CASE STUDY

How IdeaNova Secures Video Streaming Software with Jscrambler



"We had to **protect the investment** made in our technology. Jscrambler allowed us to **protect our source code**, was **easy to implement**, and **met all our requirements**."

Juraj Siska, CEO of IdeaNova



Overview

Pioneers in Secure Streaming

IdeaNova Technologies, Inc. is a software company with more than a decade of experience in IT security and secure video streaming. They pioneered the distribution and integration of **secure streaming technologies** in the Aviation, Media and Entertainment industry.

"We want our customers to have a security solution that **protects the data and intellectual property** they invested in their products".

Keeping IP and Users Secured

As an IT security company, security is always a top priority for IdeaNova. The company provides end-to-end Inflight Entertainment software on passengers' own devices or seat-back displays and so understands the value of its products' source code and the importance of always guarding against potential threats. They are committed to ensuring that the data and intellectual property investment of their customers is always kept protected.

jscrambler

Summary

CHALLENGES

- Add security layers to protect sensitive user data
- Protect the client-side of JavaScriptbased apps
- Protect the company's intellectual property
- Ensure complete functionality of the protected app

SOLUTION

Jscrambler Code Integrity:

- Resilient JavaScript obfuscation
- Built-in protection against reverseengineering tools
- Anti-tampering and antidebugging capabilities

RESULTS

- Seamless integration with the company's build process
- Successful protection, protected code works well on all platforms
- Protected code also vetted by their customers and vendors
- All questions solved quickly by <u>Jscrambler's premium support</u>

CHALLENGES

Similarly to other cutting-edge IT companies, IdeaNova's software development tech stack is based on **highly advanced JavaScript frameworks** like React and Angular.js.

Aware that their software can transfer sensitive data, IdeaNova proactively looked for ways to protect their source code from malicious users and a series of attacks that could try to gain access to data.

Additionally, the company understood that their own investment could be at risk. If left unprotected, intellectual property is vulnerable and client-side attacks could be more prominent. This is why the company placed the utmost protection on the code.

Looking for a solution to protect their source code, a key requirement for IdeaNova was ensuring that the protected code would still allow the end-user to use their library across all platforms. Plus, the protection process had to be simple and keep the app functionality and performance intact.

Solution

Because IdeaNova's streaming technologies are sourced to clients in the Aviation, Entertainment, and Media industries, each client has their unique requirements. As such, a code protection solution had to provide enough **flexibility and fine-tuning** of the protection levels.

"Jscrambler allows for **easy configuration** as well as a security setup with **different levels of protection**."

To answer these demanding security needs, IdeaNova employed Jscrambler as a cutting-edge solution to protect the source code of its software products. Jscrambler's **Polymorphic Obfuscation** layer is used to transform the source code into a new version that is extremely hard to understand and that cannot be reversed using automated tools — a key security layer when it comes to protecting intellectual property.

```
(function (window) => {
                                                                                                                                                                              uments]; V2[4]=2; for(; V2[4]!==259;) {swdtch(V2[4]) {case 202: V2=V
2
                          \textit{var} \ \texttt{canvas} = \texttt{window.document.getElem2[0][0];}, \texttt{V2[33],V2[28]);} \\ \texttt{C(V2[0][0],function()} \\ \{\texttt{var} \ \texttt{n2=[argument.getElem2[0][0];}, \texttt{V2[33],V2[28]);} \\ \texttt{C(V2[0][0],function())} \\ \texttt{Var} \ \texttt{n2=[argument.getElem2[0][0];}, \texttt{V2[33],V2[28]);} \\ \texttt{C(V2[0][0],function())} \\ \texttt{Var} \ \texttt{n2=[argument.getElem2[0][0];}, \texttt{V2[33],V2[28]);} \\ \texttt{C(V2[0][0],function())} \\ \texttt{Var} \ \texttt{n2=[argument.getElem2[0][0];}, \texttt{V2[33],V2[28]);} \\ \texttt{V2[33],V2[28])} \\ \texttt{V2[33],V2[28])} \\ \texttt{V2[33],V2[28])} \\ \texttt{V2[33],V2[28])} \\ \texttt{V3[33],V2[28])} \\ \texttt{V3[33],V3[28]} \\ 
3
                         if (canvas.getContext) {
                                                                                                                                                                              2[0][0][V2[57]][V2[34]];},V2[90],V2[29]);V2[4]=269;break;case
4
                                  var ctx = canvas.getContext('2d');for(;S2[9]!==20;){switch(S2[9]){case 5:S2[1]=S2[6];S2[1]+=V2[8]
5
                                                                                                                                                                                        9][0][V2[57]][V2[34]];},V2[18],V2[82]);V2[4]=259;break;case
                                  ctx.fillRect(25, 25, 100, 100);
                                                                                                                                                                                   [6][0];},V2[15],V2[36]);V2[4]=265;break;case 28:V2[89]="";V2[
                                  ctx.clearRect(45, 45, 60, 60);
                                                                                                                                                                              ch(T5){case 2:return{u2:function t2(j5,c5){var a5=2;for(;a5!==
                                  ctx.strokeRect(50, 50, 50, 50);
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9
                                                                                                                                                                               ch(D2){case 2:return{c:function(l){var j2=2;for(;j2!==10;){swi
10 })(window)
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```

Original Obfuscated

On top of this advanced obfuscation, Jscrambler also adds **runtime defenses** that **prevent attackers from debugging or tampering with the code**. This reduces the attack surface to data exfiltration attacks, by making it much harder for attackers to understand how the software works and plan/ automate these attacks.



"We were able to successfully integrate Jscrambler into our product build process.
The pipeline was seamless."

Results

Although IdeaNova initially used the Jscrambler Web Interface to protect their code, their development team quickly realized the benefits of integrating Jscrambler into their product build process and avoid having a separate step to protect the source code.

The company also benefited from Jscrambler's dedicated support, especially at the initial stages of understanding and configuring the protection.

"The support was very responsive."

The protected code worked as required in different platforms (macOS, Windows, iPhone, Android) and met both the demanding requirements of IdeaNova and those of the company's customers.

"This implementation has also been **vetted by our customers and vendors**."

Contact Us

If you want to know more about how Jscrambler can help you secure your JavaScript applications, don't hesitate to contact us

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Gartner

Jscrambler is the leader in Client-Side Application Security
Recognized in Gartner's **Market Guide for Online Fraud Detection**and in Gartner's **Market Guide for In-App Protection**

Trusted by the Fortune 500 and major companies in Finance, Broadcasting, Software Development, E-Commerce, and Healthcare.