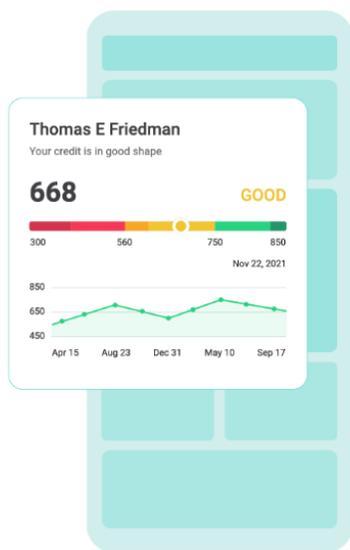array

Embedded Web Components

Array provides financial, identity, and privacy protection products to digital brands, fintechs, and financial institutions as either APIs or embedded web components. This paper describes the value of each deployment option to our clients and their customers and provides a comparison that shows the advantage of using embedded web components with APIs when a digital brand, fintech, or financial institution wants to provide valuable services to their customers.

What are embedded web components?

Array's embedded web components are modular reusable elements that can be combined to make a complete user experience, such as showing a customer's credit scores within a mobile banking app. Our clients can easily implement these components in any web application, making it easier for developers to build complex and interactive user interfaces.

How do components compare with APIs?

Array's APIs are sets of protocols, routines, and tools that we provide to clients for them to implement when coding functionality on their websites. Implementing Array's APIs requires a significant commitment of a client's development, security, and compliance resources; however, APIs can provide them a greater ability to customize the experience.

A better user experience shows that the organization prioritizes its customers

Digital experiences have become increasingly important as more people rely on web-based solutions for their financial needs beyond simple banking, including managing their credit profile, protecting their identity online, monitoring their expenses, and managing their online subscriptions. According to Forrester.com, "half of all US online adults with bank accounts said they 'should be able to accomplish any financial task through a mobile device.'" Array is well positioned to provide solutions that benefit those organizations and their customers or members.

A key part of Array's approach is the close integration of our products within a suite of offerings. Instead of providing one-off apps that address one aspect of a consumer's need, Array provides experiences such as My Credit Manager that pulls together multiple components for credit management that can be accessed from a single dashboard. Similarly, Array is creating a suite of products that help consumers who are new to credit build their credit reliably.

The kind of solution that's best for a digital brand, fintech, or financial institution depends on their developer resources and how much they want to be involved in customizing the experience. Most institutions will find that embedded web components are the easiest, quickest, and most secure way to provide enhanced services to their users.

Embedded Web Components

Simplicity of Implementation

Embedded web components are a simple and convenient way to add specific functionality to a user experience, including those in mobile apps, digital banking environments, or websites. Because they're self-contained widgets, clients can easily implement and use them without the need for extensive coding. Implementing Array's embedded web components requires only adding the custom element within a simple script tag in a web page's HTML code. This simplicity makes embedded web components a great option for digital brands, fintechs, and financial institutions that want to quickly and easily add features to their website without having to build them from scratch. Additionally, because Array's web components are built using standard web technologies, they're suitable for use across a wide range of platforms and devices, maximizing their accessibility for users on desktop, mobile web or native mobile. Overall, the simplicity of using embedded web components makes them a valuable asset for any digital brand, fintech, or financial institution wanting to enhance the financial tools they offer to their members or customers.

Speed of Deployment

Because embedded web components are simple to implement, the speed that they can be deployed is significantly greater than implementing the same functionality using APIs. Our clients typically launch in just a few short weeks.

Consistency in Design and Functionality

Embedded web components provide consistency to users and help to ensure that they have a seamless and intuitive experience when accessing Array products from a digital brand, fintech, or financial institution's website. Because Array provides consistent styles, layouts, and behaviors for our components, it's easier for users to understand and navigate the content which helps to establish a sense of trust and credibility between the digital brand, fintech, or financial institution and its customers.

Optimal User Experience

Our embedded web components are designed with users in mind. Our collective experiences reflect foundational and optimized product designs that fully empower the end-user with knowledge of their credit health. With our components, our clients don't have to worry about spending extra resources on developing the user interface to display consumer credit, identity, or privacy information.

Security

Embedded web components come with a high level of security, which is critical for working with members' and customers' private information. There's no need for a digital brand, fintech, or financial institution to implement further security measures to ensure the safety of users' data. By leveraging our infrastructure, Array helps our clients manage their regulatory requirements (credit bureaus, federal, and state) related to consumption and storage.

Easy to Update and Add Functionality

Updating and adding new functionality to embedded web components is typically very easy for the client. Array makes changes to the codebase of the web component, deploys the updated component to a hosting service, and then the client updates the script tag for the component on the web page where it's embedded.

Customized Themes

Embedded web components are provided with a default theme. However, customized themes are available to private label clients. Array changes the style, fonts, colors, and other elements of the component to match a client's own theme and provide a seamless experience for a client's customers when they move between web pages in the client's portal and the embedded web components provided by Array.

Localization

Array provides embedded web components with localized content for US Spanish and Canadian French. There's no work to do on the client's end. If the user's browser or system is set to Spanish or French, the module's user interface displays either US Spanish (es-US) or Canadian French (fr-CA). Array will continue to add new languages that are important for reaching key demographics.

APIs

Complexity for Developers

Using APIs to implement functions can be complex because it requires strong developer skills and a good knowledge of the specific API being used. Each API has its own unique set of rules, protocols, and requirements for making requests and receiving responses. This means that while Array's experts have crafted excellent guidelines, developers must carefully read and understand the documentation provided for the API in order to correctly implement it in their own code.

Slower Deployment

The difficulties and need for greater expertise when implementing APIs can often translate to longer deployment time,increasing the cost to deploy and the time to deliver value to users.

Data Security Obligations

Implementing functionality using APIs requires a digital brand, fintech, or financial institution to provide security measures to protect their members' and customers' data. APIs need to be constantly monitored to ensure that all security and compliance requirements are being adhered to – in contrast with embedded web components where the client's servers are never processing sensitive data.

Greater Risk of Inconsistency in Design and Functionality

APIs can create challenges in terms of design and functionality. APIs can have many different endpoints, each with its own set of parameters and requirements, which can make it difficult for developers to ensure that their code is properly interacting with the API. Improperly implemented APIs can lead to user frustration and a poor return on investment.

In an API implementation, clients would still need to use our KBA (knowledge-based authentication) component to authenticate their customers as an authentication protocol is a best practice from a data security perspective.This pairing can lead to a choppy experience for the end user from signup to authentication.

Designing while managing compliance risk is also a challenge: ensuring an excellent UI/UX while also adhering to credit bureau requirements can be difficult.. From the beginning, our embedded web components have been designed to optimize for the user experience while still adhering to bureau requirements regarding permissible use, data delivery and data display.

UX Design Challenge

Implementing APIs puts the burden on the digital brand, fintech, or financial institution to provide an intuitive and delightful user experience. If the digital brand, fintech, or financial institution has the resources to do this, they'll likely achieve results as good as they could get through embedded web components. However, the cost of maintaining a UX design team in house is another expense that affects ROI (return on investment).

Difficult Updates and Maintenance

Updating a new API can be a challenging task for a client, especially if they're not familiar with the technology. There are many factors that can make the process difficult, including the complexity of the API and the client's level of technical expertise. Additionally, Array's APIs incorporate tokenization in order to maintain user privacy with SOC II compliance. Adjusting tokens using API integration may require a client to change their own systems, which can be time-consuming and require a significant amount of effort. Finally, implementing a user interface for non-credit tools is also a challenge via API, because the UI inputs must be built to a particular specification.

Changes to naming conventions would be automatically updated through our components but through an API implementation, developers would need to make code changes to take advantage of the latest version of Array's products.

Overall, the difficulty of updating a new API will depend on the specific circumstances of the client and the resources they have available, but will always require and investment of time and effort.

Localization Challenge

It's more difficult to provide localized language experiences using APIs. If a consumer experience, fintech, or financial institution wants to provide a localized interface for a market demographic they want to reach, they're on their own with finding and working with a vendor and implementing the translated text.

Conclusion

Array's embedded web components offer a number of distinct advantages over APIs for Array's products:

- Simplicity of implementation
- Ease of updating and adding new functionality
- Quicker deployment
- Greater consistency in themes and styles
- Easier customization for private label and private label clients
- Built-in localization
- Better return on investment
- Cleaner Go-to-Market

About Array

Array fuels financial progress for many of the world's leading fintechs, financial institutions, and digital brands with a suite of private-label fintech solutions that can be easily embedded. Array drives engagement and revenue for our clients by helping them stand out in a crowded market and forge deeper relationships with their customers. More than a suite of products, we're building a platform to help consumers own their financial future. Array was founded in 2020 by Martin Toha and Phillip Zedalis. Key investors include Battery Ventures, General Catalyst, and Nyca Partners. To learn more visit array.com.

array