Protect Your APIs with Citrix ADC

Applications are becoming API driven, which is great for efficiency but creates exposure for cyber-attacks. A single malicious or incorrect API call can bring down an application or expose data that can harm a business or a user. Gartner suggest that 90% of web applications will increase their threat surface area in the next year or so because of API use. It is vital, therefore, to secure those APIs.

Citrix Application Delivery Controller (ADC) offers comprehensive protection for your APIs so that you can protect your valuable application and data assets. The integrated offering makes API security effective and simpler to deploy. Citrix ADC operates in conjunction with Citrix Application Delivery Management (ADM), to provide insight into the performance and use of your APIs to help you make more informed decisions.

Comprehensive Protection for Your APIs

Citrix ADC front ends applications and acts as a gateway and proxy device. Because it sees all the requests and responses between applications and/or microservices, Citrix ADC can intercept, check and monitor communications. Citrix ADC has several runtime features that protect an application's APIs, including:

- **Whitelisting and blacklisting**: With Citrix ADC you can create lists of IP addresses that are specifically allowed or blocked from making an API call to an application. Controlling who and what is allowed to communicate can cut the security workload dramatically
- **Authentication**: By authenticating API calls, you can protect against the abuse and misuse of APIs by only allowing permitted devices to communicate
- **Authorisation**: Citrix ADC can enforce who or which application is allowed to access an application and which API calls they can make
- **Rate limiting**: Citrix ADC uses a variety of techniques to throttle the rate at which API calls are received to prevent overwhelming back end resources
- **Encryption**: Citrix ADC uses TLS to encrypt the APIs to protect them in transit between the client and the API server
- **Content routing**: Citrix ADC has a rich stack of content routing capabilities for APIs, like load balancing, GSLB and content switching. This ensures the API calls reach the best destination for processing.

With these protections, and the integrated Web Application Firewall (WAF) and bot mitigation modules, Citrix ADC is able to provide comprehensive API protection for all your application types including against the OWASP top 10 for APIs – e.g. SQL injection, buffer overflow protection, JSON threat protection.
Higher Performance and Lower Latency with Integrated Single Pass

Consolidation of the API security functionality into a single device removes the need for separate WAF, load balancer and API GW and offers more consistent operations. It also leads to better security less complexity and a lower TCO. Further, the integrated nature and the superior software architecture of Citrix ADC, means it is able to intercept, inspect and define the actions to be taken on a request in a single pass, which enhances performance.

Citrix single pass architecture enables higher throughput and low-latency, even when multiple security features are deployed.

Faster Deployment

Deploying your applications quickly is important to the success of the business. It is this that gives the business the agility to react to changes and innovate rapidly. And as so much application development is turning to APIs, it is vital that the right levels of security are implemented or it can create issues.

Citrix has been working to help customers deploy and secure their applications. Citrix has created Custom Resource Definitions (CRDs) to make it easier to implement API protections like authentication in cloud native deployments. This which will help you ensure that your applications and their APIs can be deployed more quickly.

Further, Citrix ADC integrates with developer tools that follow the open API standard like swagger to enable auto discovery of APIs. This can dramatically speed up the configuration of your Citrix ADC API gateway functionality. What used to be a time consuming, manual process is now simplified and automated with Citrix ADM. It will accept new API definitions from an OAS file, let you configure your API Gateway policies and then deploy them Citrix ADC in a matter of minutes. This enables you to get new applications deployed, securely fast.

Actionable Insights for Better Visibility and Faster Troubleshooting

Like the rest of the Citrix security functionality, APIs are backed up with solid analytics. From a single pane of glass you get immediate access to API information like usage, authentication success and failure rates, errors, latency, TLS data like ciphers and key strengths in use, API call Geolocation and more.

Simple, intuitive dashboards make it easy to see the health, performance and security of your APIs. You can see, for example, when authentication failures rise which might indicate an issue with a change or perhaps some sort of brute force attack on your application.

All of this functionality is important to securing your APIs. Many customers use API lifecycle Management tools today. Citrix API protection complements these tools and augments them with WAF and bot protection.

Flexible and Simple Deployment Options

API Protection is available as part of the Citrix ADC offering and is included with the premium edition license. Citrix ADC is available in multiple form factors and in the major public clouds (AWS, Azure, GCP) to suit your deployment requirements. The single code base across whole Citrix ADC portfolio enables you to maintain operational consistency across your deployments and applications.
The single license approach, which includes security features including WAF, bot mitigation and API protection, brings simplicity and reduces TCO. Keeping it simple lets you keep it secure.