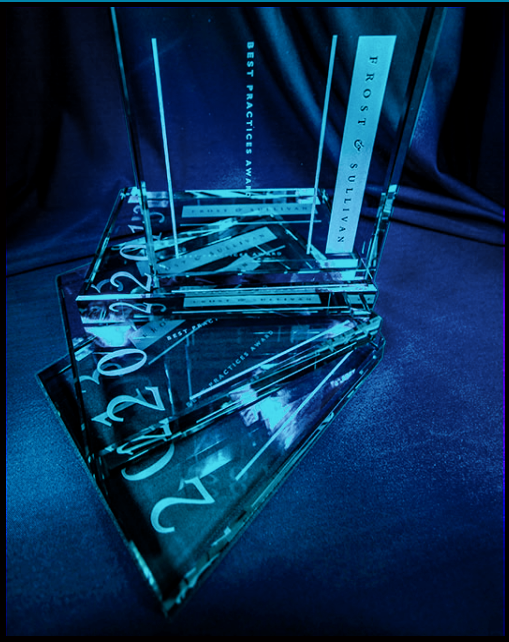


FROST & SULLIVAN



2016 Global  
Web App Firewall (WAF)  
Customer Value Leadership Award



FROST & SULLIVAN

BEST  
2016 PRACTICES  
AWARD

GLOBAL  
WEB APP FIREWALL (WAF)  
CUSTOMER VALUE LEADERSHIP AWARD

2016  
BEST PRACTICES  
AWARDS

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## Background and Company Performance

### *Industry Challenges*

Web applications are the lifeblood of online communications—Web applications provide the means for businesses to interact with customers and partners. Businesses use Web applications to enable interactive functionality on their websites, which can include anything from registration to shopping carts, customer service, and account log-in. Many businesses now exist that solely operate online.

Accordingly, the Web application firewall (WAF) is an essential security technology in today's IT networking environment. WAF monitors Web sessions, detecting and alerting or blocking unwanted actions, illicit access, fraudulent transactions, or other efforts to compromise the integrity of Web applications.

Although the Web application itself may not offer significant value to threat actors, these applications are often linked to valuable back-end databases or can provide a foothold for an intruder in the network, bypassing perimeter defenses such as next generation firewalls (NGFWs) or intrusion prevention systems (IPS).

Yet despite the importance of a WAF solution, many organizations place a lesser priority on deploying and updating a WAF. A Web application alone is a low value target which can cause customers to overlook the potential damages that can be achieved through a compromised Web application. Essentially, underestimating the risk introduced by unprotected Web applications may provide customers a false sense of security.

Furthermore, WAF has a history as an imperfect and complex security tool that requires a significant effort to deploy, tune, and maintain. In the past, such complexity has proven to be a factor that contributes to the hesitation to deploy WAF solutions.

Customers have also had historical concerns about WAF accuracy. WAFs that trigger too many false alarms, called false positives, are a burden on the time and resources of the IT staff. Most importantly, false positives may impact the user experience, which is the top priority in certain industries such as gaming, entertainment, and retail. WAFs that waste time or block customers are often bypassed or shelved completely.

Despite these challenges, the importance of securing Web applications is gaining prominence as threat actors have proven to be resourceful and resilient in their efforts to steal data and penetrate network defenses. As a result, the WAF market grew at a high rate of 23.5% in 2015 as documented by Frost & Sullivan research.<sup>1</sup> While the market is growing rapidly, market consolidation is inevitable as only room for a handful of WAF

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<sup>1</sup> *Web Application Firewall (WAF) Global Market Analysis: New Technologies and Threats Collide to Create Expanded Opportunities*, Frost & Sullivan, February 2016, [available here](#).

vendors exists. Vendors that deliver a high level of customer value in their solutions can gain in market share and prominence in the WAF market.

## *Customer Impact and Business Impact*

Akamai is a “powerhouse” in the WAF market. Akamai’s approach to WAF leverages the scale of its massive content delivery network (CDN) infrastructure while combining with unique and proprietary Web security technologies. The resulting combination, called Kona Site Defender, delivers a level of value worth noting. Though Akamai Kona Site Defender is competitive in the “price-performance” category, the solution also excels in performance, enhancing value, customer service excellence, and growth potential.

### **WAF Performance**

Akamai Kona Site Defender solution provides WAF protections against Open Web Application Security Project (OWASP) Top 10 Threats including SQL injection, cross-site scripting (XSS), and cross-site request forgery, as well as more advanced threats such as malicious bots, Trojan backdoors, content leakage, and application layer DDoS attacks. Kona Site Defender is also capable of inspecting HTTPS traffic to find threats that use encryption to bypass network defenses, using proprietary methods that do not require customers to share sensitive SSL private keys.

Akamai Cloud Security Services are enabled by the Akamai Intelligent Platform which consists of a distributed network of servers and software around the world processing over two trillion transactions each day. Currently, the platform includes over 200,000 servers in over 1,400 networks globally. As a result, Akamai has one of the largest global footprints for collecting and analyzing Web traffic and threat data.

Within this platform, Akamai Cloud Security Intelligence (CSI) is the data processing engine that analyzes up to 10 billion Web security events and two Petabytes (PB) of data each day. As a frame of reference two Petabytes is equivalent to 40 million four drawer filing cabinets filled with text. Based on the intelligence provided through the CSI engine, the Akamai threat research team continuously updates the Kona Site Defender WAF rule set to ensure high accuracy of threat detection. As a result, Akamai is able to provide low false positive rates and low false negative rates, thereby ensuring that Kona Site Defender provides reliable detection rates without wasting customers’ time and resources on false alarms.

### **Enhancing Value**

Kona Site Defender includes WAF functionality as well as DDoS mitigation capabilities. In combination with the Akamai CDN service, Kona Site Defender can additionally accelerate and optimize Web traffic. Essentially, the service provides a value “triple-threat”: it improves application performance, protects against data breaches, and ensures

availability.

The solution includes additional layers of defense such as Site Shield and can be combined with related Akamai security services such as Client Reputation or Bot Manager to provide further protection and business benefits. For example, Bot Manager is a unique solution that helps businesses to apply appropriate controls for the wide range of bots that impact the business. Desirable bots can be optimized and prioritized, malicious bots can be discovered and mitigated, and different actions such as redirect, slow, or serve alternate content, can be applied to bots that fall into more of a “grey” area. The result is that businesses using Bot Manager can gain more Web presence and better communicate with customers and partners while further mitigating risk.

### **Customer Service Experience**

Customers also have the option to subscribe to Akamai Kona Site Defender Managed Service to enlist the assistance of Akamai’s security experts and 24x7 global Security Operations Center in maintenance, updating, reporting, and monitoring.

The assistance provided by managed security services is invaluable. In general, a managed service represents tremendous value to customers in numerous ways: no existing expertise is required, no new training is required, and the customer doesn’t have to hire any new resources to handle the additional work, either for deployment or maintenance.

### **Price Performance**

Akamai Kona Site Defender is a cloud service that does not require customers to deploy new hardware or software. Customers simply point their traffic to Akamai. This low-touch model is a tremendous value, as traditional appliance-based WAFs were often considered hard-to-deploy, time consuming, and disruptive.

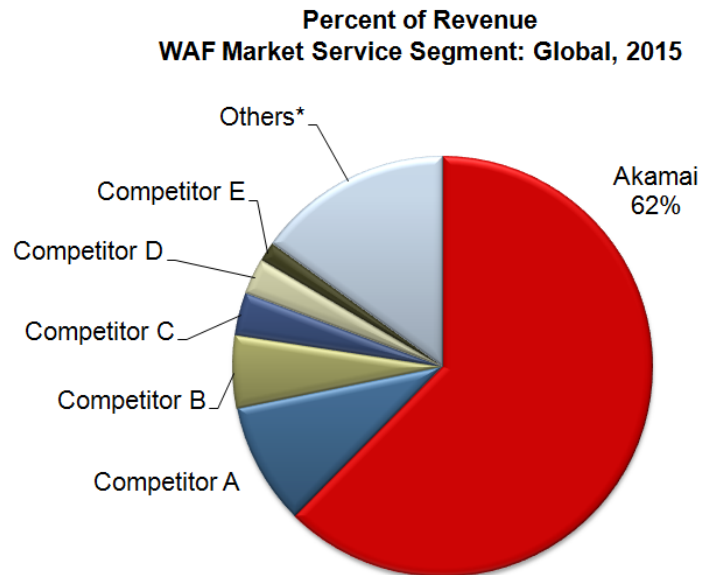
Many customers find they can reduce their overall total cost of ownership (TCO) for WAF by purchasing Kona Site Defender, while at the same time achieving 100% availability and unlimited capacity to handle future high-volume attacks. The savings come from the elimination of capital expenses on on-premises hardware appliances and the associated annual maintenance fees and depreciation for such security controls. Operational efficiencies then improve the TCO by enabling customers to deploy the controls in far faster intervals, and update those controls as needed, thus realizing the business benefits sooner than an on-premises appliance-based approach.

### **Growth Potential**

Akamai provides a high level of value by delivering leading WAF performance, simplified deployment and management, integrated DDoS protection and Web acceleration, and

excellent services. As a result, Akamai Kona Site Defender has been popular with a range of customers, from large enterprise organizations to small businesses and online businesses. Akamai has emerged as one of the largest vendors in the “services” segment of the WAF market.

Akamai has reported strong growth rates for its Cloud Security Services in 2015, and Kona Site Defender remains an important strategic growth vector for Akamai.



## *Conclusion*

Akamai has delivered a high performance, easy to implement and simple to maintain solution to the WAF market, leveraging its massive content delivery network (CDN) infrastructure and combining with unique and proprietary Web security technologies. Akamai's robust WAF solutions are delivered as a service, eliminating the need for large upfront capital expenditures and highly specialized security professionals for maintenance. Additionally, the services provide compelling value, being affordable for organizations of all sizes from enterprise to small business. As a result, Akamai has earned Frost & Sullivan's 2016 Customer Value Leadership Award for the Web Application Firewall market.

## Significance of Customer Value Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. Delighting customers is therefore the cornerstone of any successful growth strategy. To achieve these dual goals (growth and customer delight), an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



## Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by two macro-level categories: customer impact and business impact. These two sides work together to make customers feel valued, and confident in their products' quality and long shelf life. This dual satisfaction translates into repeat purchases and a high lifetime customer value.

## Key Benchmarking Criteria

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Customer Impact and Business Impact—according to the criteria identified below.

### Customer Impact

- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

### Business Impact

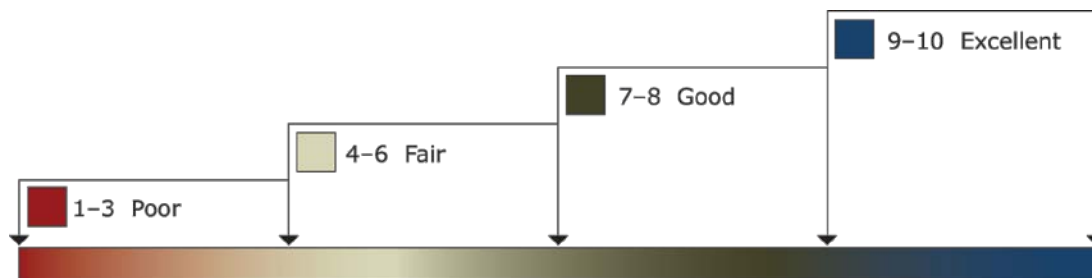
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

## Best Practice Award Analysis for Akamai

### Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

#### RATINGS GUIDELINES



The Decision Support Scorecard is organized by Customer Impact and Business Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.



The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key players as Competitor 2 and Competitor 3.

DECISION SUPPORT SCORECARD FOR CUSTOMER VALUE LEADERSHIP AWARD

<i>Measurement of 1–10 (1 = poor; 10 = excellent)</i>			
<b>Customer Value Leadership</b>	Customer Impact	Business Impact	Average Rating
<b>AKAMAII</b>	<b>9.5</b>	<b>10</b>	<b>9.75</b>
Competitor 2	8.5	8.5	8.5
Competitor 3	7	7.5	7.25

*Customer Impact*

**Criterion 1: Price/Performance Value**

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

**Criterion 2: Customer Purchase Experience**

Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

**Criterion 3: Customer Ownership Experience**

Requirement: Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service

**Criterion 4: Customer Service Experience**

Requirement: Customer service is accessible, fast, stress-free, and of high quality

**Criterion 5: Brand Equity**

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

*Business Impact*

**Criterion 1: Financial Performance**

Requirement: Strong overall financial performance in terms of revenues, revenue growth, operating margin and other key financial metrics

**Criterion 2: Customer Acquisition**

Requirement: Customer facing processes support the efficient and consistent acquisition of new customers, even as it enhances retention of current customers

**Criterion 3: Operational Efficiency**

Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard

**Criterion 4: Growth Potential**

Requirements: Customer focus strengthens brand, reinforces customer loyalty and enhances growth potential

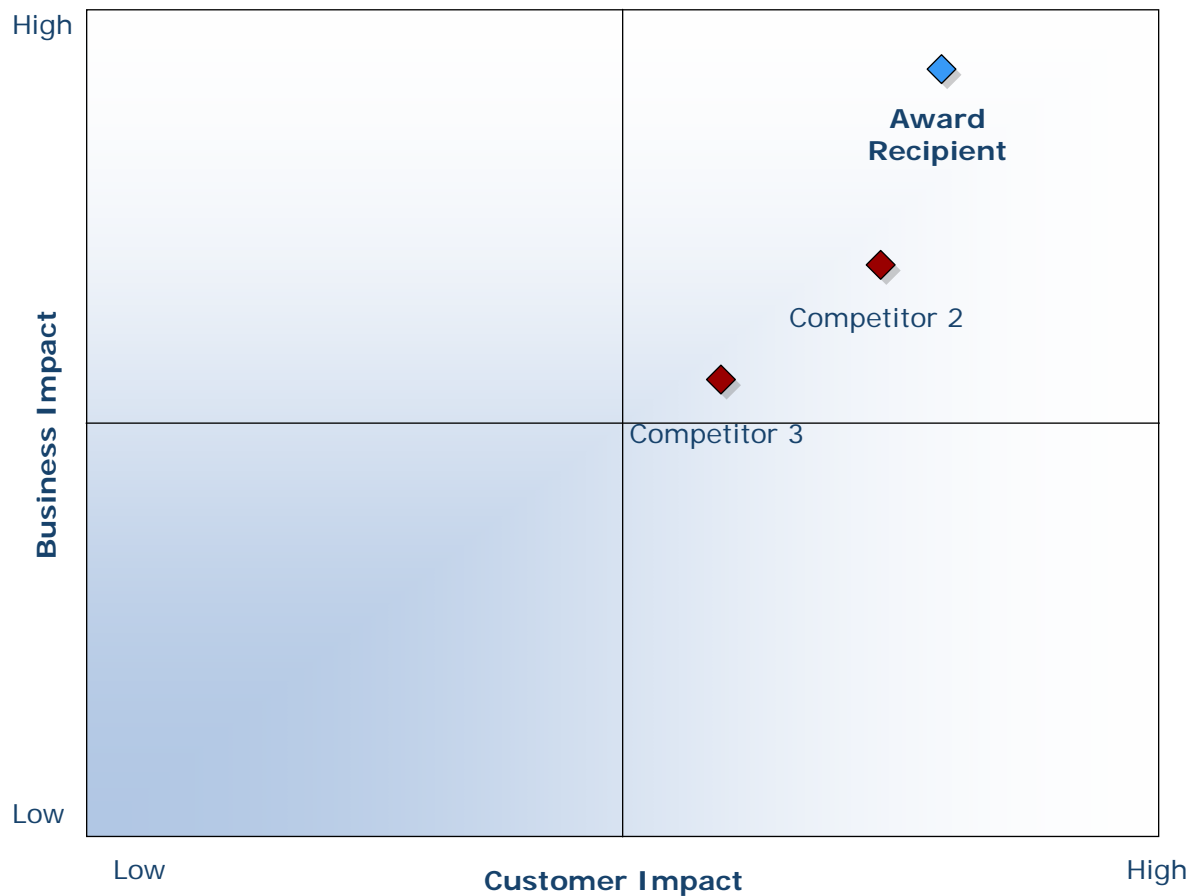
**Criterion 5: Human Capital**

Requirement: Company culture is characterized by a strong commitment to quality and customers, which in turn enhances employee morale and retention

*Decision Support Matrix*

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.

DECISION SUPPORT MATRIX FOR CUSTOMER VALUE LEADERSHIP AWARD



# The Intersection between 360-Degree Research and Best Practices Awards

## Research Methodology

Frost & Sullivan’s 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan’s research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.



## Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 <b>Monitor, target, and screen</b>	Identify award recipient candidates from around the globe	<ul style="list-style-type: none"> <li>• Conduct in-depth industry research</li> <li>• Identify emerging sectors</li> <li>• Scan multiple geographies</li> </ul>	Pipeline of candidates who potentially meet all best-practice criteria
2 <b>Perform 360-degree research</b>	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> <li>• Interview thought leaders and industry practitioners</li> <li>• Assess candidates' fit with best-practice criteria</li> <li>• Rank all candidates</li> </ul>	Matrix positioning all candidates' performance relative to one another
3 <b>Invite thought leadership in best practices</b>	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> <li>• Confirm best-practice criteria</li> <li>• Examine eligibility of all candidates</li> <li>• Identify any information gaps</li> </ul>	Detailed profiles of all ranked candidates
4 <b>Initiate research director review</b>	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> <li>• Brainstorm ranking options</li> <li>• Invite multiple perspectives on candidates' performance</li> <li>• Update candidate profiles</li> </ul>	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 <b>Assemble panel of industry experts</b>	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> <li>• Share findings</li> <li>• Strengthen cases for candidate eligibility</li> <li>• Prioritize candidates</li> </ul>	Refined list of prioritized award candidates
6 <b>Conduct global industry review</b>	Build consensus on award candidates' eligibility	<ul style="list-style-type: none"> <li>• Hold global team meeting to review all candidates</li> <li>• Pressure-test fit with criteria</li> <li>• Confirm inclusion of all eligible candidates</li> </ul>	Final list of eligible award candidates, representing success stories worldwide
7 <b>Perform quality check</b>	Develop official award consideration materials	<ul style="list-style-type: none"> <li>• Perform final performance benchmarking activities</li> <li>• Write nominations</li> <li>• Perform quality review</li> </ul>	High-quality, accurate, and creative presentation of nominees' successes
8 <b>Reconnect with panel of industry experts</b>	Finalize the selection of the best-practice award recipient	<ul style="list-style-type: none"> <li>• Review analysis with panel</li> <li>• Build consensus</li> <li>• Select winner</li> </ul>	Decision on which company performs best against all best-practice criteria
9 <b>Communicate recognition</b>	Inform award recipient of award recognition	<ul style="list-style-type: none"> <li>• Present award to the CEO</li> <li>• Inspire the organization for continued success</li> <li>• Celebrate the recipient's performance</li> </ul>	Announcement of award and plan for how recipient can use the award to enhance the brand
10 <b>Take strategic action</b>	Upon licensing, company may share award news with stakeholders and customers	<ul style="list-style-type: none"> <li>• Coordinate media outreach</li> <li>• Design a marketing plan</li> <li>• Assess award's role in future strategic planning</li> </ul>	Widespread awareness of recipient's award status among investors, media personnel, and employees

## About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best in class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.