F1Security

F1Security, Inc.
Corporate public relations
BROCHURE

http://www.f1security.co.kr/English
http://www.uwss.online

F1Security

- **Company Name**

  F1Security, Inc.

- **Management Team**

  Dae Ho, Lee (CEO)
  Dong Keun, Lee (CTO)
  Ki Hwan, Kim (CSO)
  Sung Chul, Pyun (BizDev)
  *security experts (Over 90%)

- **Year Founded**

  October 2012

- **Core Business**

  Information Security Consulting
  Web Security Solution

Business Description

F1Security provides web security solutions developed by industry consulting experts in cyber security. We have a family of web-based solutions that contribute to building a more secure web environment from hacking through web application firewalls, web-shell detection solutions, and web-shell scanners. Our solution has many practical use cases in Government, Enterprises, SMEs, and MSSPs.
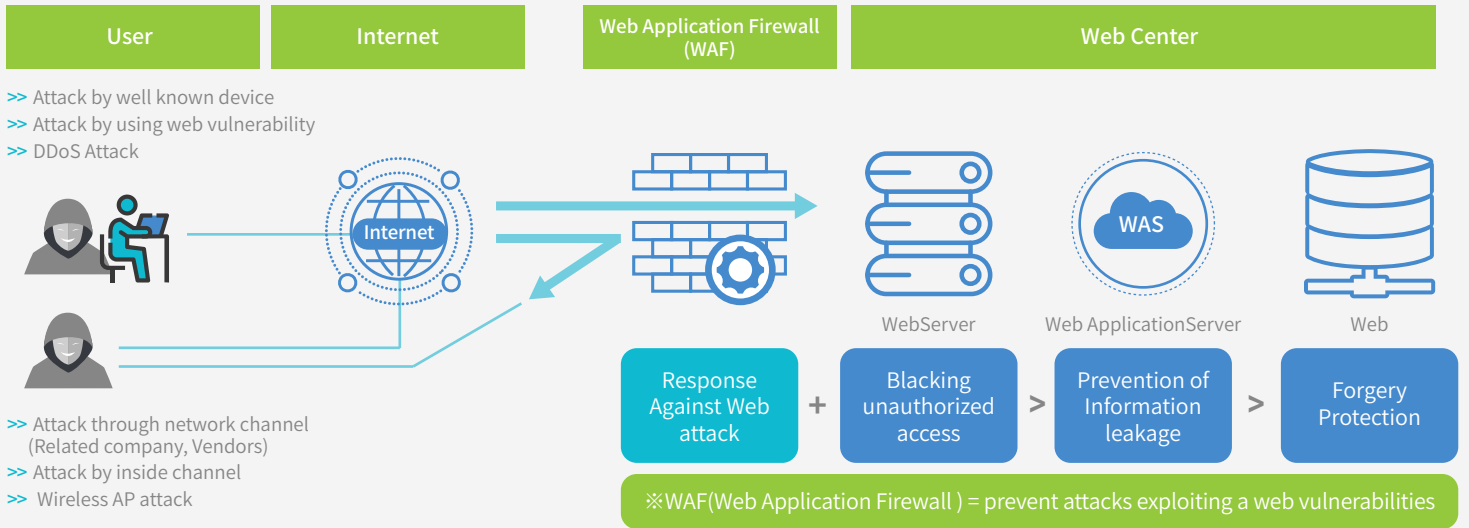
Core Technology / Products

F1Security provides web security solutions such as WebCastle(Web Application Firewall), WSFinder (Anti-WebShell), WMDS(Website Malware Detection System), and UWSS(Unified Web Security Service). F1 Security's web security solutions are based on a microservices architecture and operates as a patented malware detection algorithm in the United States. Our web security solution provides customers with a centralized and unified management system in the cloud, so customers can deploy and use it immediately without any additional hardware.

Differentiation

- F1Security is applying the web security technology learned through consulting services to the solution
  - Holds a total of 30 intellectual property patents relating to web security.
  - The patent also includes U.S. intellectual property rights relating to "Method and System for Detecting structured Malicious Code Using Process Behavior Prediction Technique."
  - In addition, holds patents on artificial intelligence methodologies for the detection of webshell.

- F1Security provides all-in-one web security solution with one platform
  - Supports cloud and existing infrastructure without changing the configuration of customer network.
  - Customer can use one platform for centralized management F1Security's solution for all products.
  - Reasonable price system with a monthly subscription type.

- F1Security has many practical use cases in Government, Enterprises, SMEs, and MSSPs.
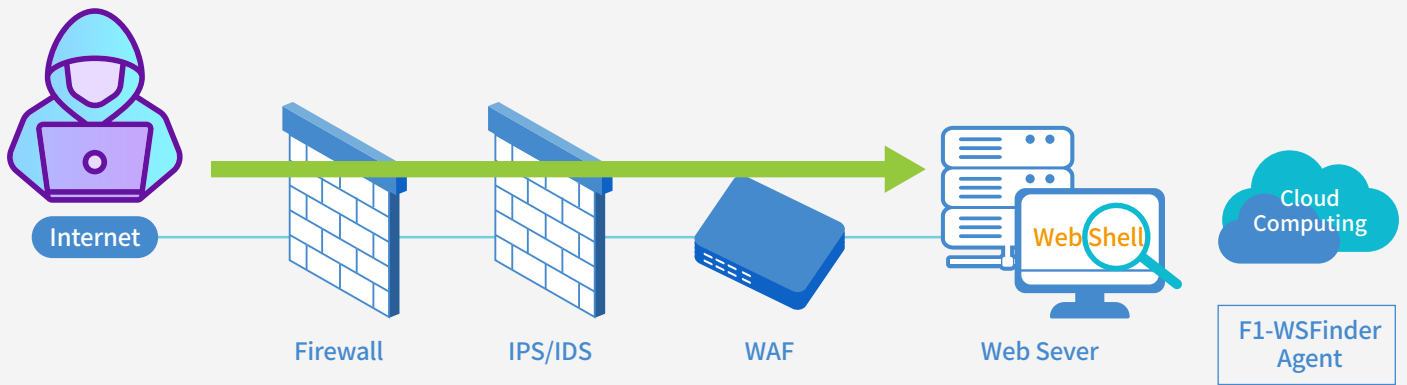
F1 WebCastle Web Application Firewall

- WebCastle is a software product specified for web applications security.
  It detects and blocks attacks on websites or web servers such as SQL Injection and XSS.

- Install and operate WEBCastle's Agent software on the web server of the customer's physical or virtual environment.

- The product allows for simple installation and easy management without web security expertise, and providing a management system including data analysis, monitor and surveillance.

- We often support for various operating systems such as Linux, Windows, and work on various server environments such as IIS and Apache.

- The service is provided as an on-premise sold at a lump sum to customers.

User	Internet	Web Application Firewall (WAF)	Web Center

>> Attack by well known device
>> Attack by using web vulnerability
>> DDoS Attack

Internet

WebServer

Web ApplicationServer
WAS

Web

>> Attack through network channel
   (Related company, Vendors)
>> Attack by inside channel
>> Wireless AP attack

Response Against Web attack + Blacking unauthorized access > Prevention of Information leakage > Forgery Protection

※WAF(Web Application Firewall) = prevent attacks exploiting a web vulnerabilities

Advantages of WebCastle

Optimum products for cloud computing environment based on host web security solution	Permanently optimized Web security solution to Green IT, IoT environment
Easy management, providing simple installation and integrated security control service	Not only real-time data monitoring but also detailed analysis with log data is available
Support for various operation system and environment	Optimized for SSL (Secure Socket Layer) to provide safe web communication
Guarantees the rapid response time of service with SSL	

- WSFinder is a software product that detects and quarantines/removes a web shell-a script installed by a hacker to execute a command on the web server-installed on a web server.

- Install and operate WSFinder's Agent software on the web server of the customer's physical or virtual environment.

- Support for PHP, JSP, ASP, ASP.NET, and various web environments for each version.

- The service is provided as an on-premise sold at a lump sum to customers.

Internet — Firewall — IPS/IDS — WAF — Web Sever — Cloud Computing

F1-WSFinder Agent

● Advantages of WSFinder

Classification	Function	Characteristics
Detection function	• Adding inspection objects folder • Application rule/schedule/back up management of exception • Inspection start and reservation management • Reference for detected contents • Management of isolation cell	• File hash basic mount • Adaptation of fast regular algorithm • Loading various kinds of pattern detection algorithm • Similarity detection based upon SSDeep • Obfuscation detection function
Tested results	• Inspection lists reference • Reference of detected results lists • Searching function of detected results	• Convenient user and intuitive UI
Pattern Management	• Pattern update • User pattern update • Pattern code management • Pattern searching	• Reference of agent lists • Adding agents • License management

- WMDS is a detection optimized product that can monitor distribution of malicious codes on websites.
- Remote scanning of customer's websites can detect malicious code distribution/spreading URL link.
- The product is provided on-premise sold at a lump sum or monthly fixed-term subscription type.

Advantages of WMDS

It is optimized for detection of the distribution of malicious codes on websites.

Detection of invasion and proper response
We provide effective functions such as recognition of malware patterns and association with VirusTotal

Detection of obfuscated scripts
We can detect hidden scripts using javascript obfuscation

Stabilized web service
We support 24/7 service for the rapid response about malware issues (distribution and insertion of malware)

Optimized at malicious code detection

Convenient User Interfaces
We provide many setting options (such as max depth, and a maximum number of pages) to customize for your intuitive working environment

Tracing of external links
We trace every link to chase the origin server of malware distribution (including banner ads)

Up-to-date patterns of malware distribution
We update detection rules periodically to perceive new-type malicious codes
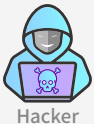
How WMDS detects malicious codes in web server?

Hackers are inserting codes in order to spread malicious code through web site which has security vulnerabilities
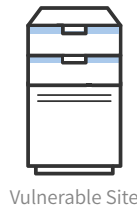
F1-WMDS detects and responds in advance not to abuse as a spreading or pass-through site

Hacker

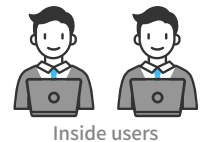1. Malicious code

Partner

1. Malicious code

Vulnerable Site

2. Normal connection

Inside users

Site Visitors
Downloading Malicious code

2-1. Trying to connect pass-through site

2-2. Try to connect spreading site

Hacker
To insert malicious code by intentional attack Using security weakness

Partner
To upload malicious code to be already inserted to contents provided by partners by intentional attack

Pass-through Site

Spreading Site

- In addition to WEBCastle, WSFinder, and WMDS, web page forgery detection is provided as a monthly subscription type.

- Provides a centralized management system constructed in the cloud at zero initial introduction cost for customers.

F1 UWSS

Providing all four web security services above in a reasonable monthly rental on a cloud platform.
Present a comprehensive technical plan for protecting websites and web servers.

| **F1 WebCastle**	**F1 WSFinder**	**F1 WFDetector**	**F1 WMDS**
Detect and block hacking attacks against web applications in real time.	Detect and take measures against webshell infection.	Detect and respond to forgery of web pages.	Detect and respond to the distribution of malicious code via the web.

◐ Advantages of UWSS

UWSS provides various values to customers as a differentiator.

Values	Differentiation factor	Similar products
Integration service	Provides a comprehensive web security solution that can be integrated and managed ※ Customized service according to customer choice	Purchase of individual products, Convenience is reduced by managing each individual product
Server construction cost reduction	Provides an integrated central management platform in the cloud ※ Customer Server Construction / Operation Cost Zero	Management server purchase and construction, operation cost is required
Immediate installation operation	Available immediately after downloading / installing Agent software	SECaaS (Proxy method) requires time to change / apply DNS
Monthly spending	Reasonable monthly subscription	Provided just on-premise configuration, Only some individual products are provided as monthly subscriptions
Operation management efficiency	Integrated operation management through a single management website ※ Contract / management of multiple products through a single window (work efficiency)	Provide individual product management system
User convenience	Increased security management convenience such as integrated dashboard and integrated report	Not provided, individual product dashboard / report
Disability Web access guarantee	No impact on customer web access due to platform or agent failure	SECaaS (Proxy method) also stops accessing customer websites in case of service infrastructure failure
Hacking Secure platform	Since the cloud platform does not bypass and store any web traffic, information leakage does not occur even if the platform is hacked.	SECaaS (Proxy method) analyzes / stores all web traffic bypass in the service infrastructure (possible), Traffic information can be leaked in case of infrastructure failure

F1 Security

Reference customers and key performance
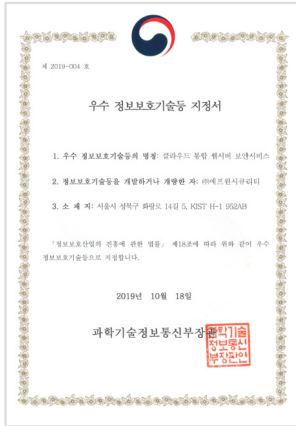
Excellent information security product and technology designated by the Ministry of Science and ICT of Korea

The Korean government selects and awards 4 excellent products from information security products developed in 2019

F1 UWSS

Intellectual Property Rights

Holds a total of 30 intellectual property patents relating to web security.

Classification	Title	Summary	Application or Registration	Applicant or Manager
Trademark	F1SECURITY	Application 2017.10	No. 40-2017-0073030	F1security
Trademark	WMDS	Registration 2017.02	No. 40-1234673	F1security
Patent	Web attack detection and prevention system	Application 2018.06	No. 10-2018-0063747	F1security
Patent	Malicious code detection device and method	Application 2018.06	No. 10-2018-6072213	F1security
Patent	Webshell detection system	Registration 2018.05	No. 10-2018-0012441	F1security
Patent	Web site forgery detection method and system	Application 2017.08	No. 10-2017-0106962	F1security
Patent	Risk Analysis System of Malicious Code by Using Machine Learning	Overseas PCT Application 2017.12	PCT/KR2017/014233	F1security

Reference customers and key performance

Has many practical use cases in Government, Enterprises, SMEs, and MSSPs.

Shinsegae-inc (iDC & MSSP)	CJ O SHOPPING (Enterprise)	Maru Internet (Web Hosting)
Shinsegae-inc is an affiliate of the Shinsegae Group and is an MSSP that provides security services while operating iDC. Shinsegae-inc provides external services by building F1 Security's UWSS as a dedicated platform.	CJ O Shopping is Korea's first large home shopping channel and uses F1Security's WMDS to monitor whether malware is distributed via its website.	Maru Internet is a web hosting company and operates a WebCastle (web application firewall) and WMDS to protect its customers' websites.

Global Partnership

F1Security

F1Security is an information protection partner that grows together with customers to improve their cyber security level.

F1Security's core business departments are penetration test, vulnerability assessment, certification consulting such as ISMS, ISMS-P, ISO27001, and personal information protection/management system consulting.

F1Security is a specialized company in the field of information security that provides solutions and services related to web server and web site protection such as web application firewall/anti-webshell/web malware distribution detection.

Since its establishment, F1Security increased sales of information security consulting services every year.
F1Security has been designated as an information protection professional service company by the Ministry of Science and ICT.
The professionalism of strategic consulting methods, the expertise of the performing organization system and the stability of the company are officially recognized.

In addition, by reflecting field know-how accumulated through consulting, we have developed both our on-premise and SECaaS (monthly subscription) web security solutions.

We are diversifying our business portfolio into the one-stop Web Security Solution Provider that supplies and builds web security solutions to domestic and overseas partners and customers.