

MONITORAPP

COMPANY INTRODUCTION

Application Security Leader

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- WMS
- SWG



01

Company Introduction

Vision

Be a leading application security solution provider in the world

Strategy

- Main Focus on Application Layer
- Maximized Optimization via Profiling & Correlation
- Threat Intelligence & Business Intelligence via Big Data Analysis
- Delivery through On-Premise & In the Cloud

Mission

Pursue the progress of information and communication technology and strive for a world in which people and knowledge by bringing people together

Core Value

- Customer Service
- Communication with Warmth and Continuity
- Team Spirit
- Enthusiastic Participation
- Strong Responsibility
- Frontier Spirit
- Creative Mind
- Endless Self-Development



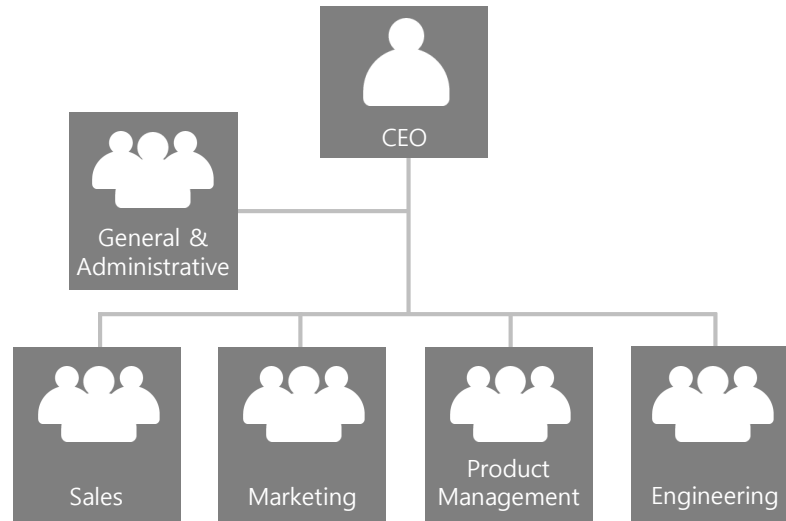
Business Area

- | | | | |
|-------------------------------------------|----------------------------------------|--------------------------|--------------------------------------|
| - Web Application Firewall (AIWAF) | - Secure Web Gateway (AISWG) | - Cloud Security Service | - Application Vulnerability Analysis |
| - SSL Visibility Appliance (AISVA) | - Secure E-mail Gateway (AISEG) | : Virtual Appliances | - Application Security Monitoring |
| | | : AIONCLOUD(SECaaS) | - Consulting Service |

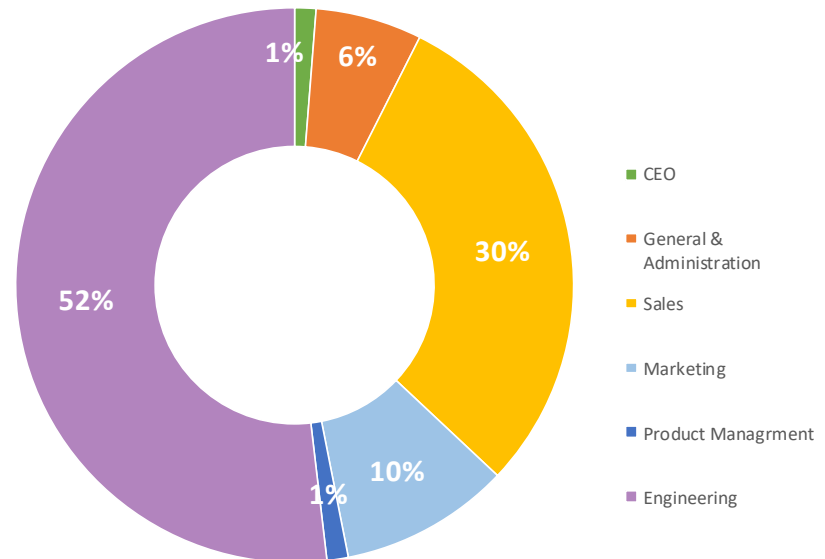
Name			MONITORAPP Co., Ltd.		
Personal / Turnover			81(2021)/\$11.2billion(2020)		
Location			27 Digital-ro 27ga-gil, Guro-gu		
Establish Date			2005. 02. 22		
Business Area			S/W Advisory, Information Security Solution		
Service URL			www.monitorapp.com		
2005	Feb	MONITORAPP established.			
2006	Feb	WAF, WISG released.	2016	Aug	Japanese branch opened
	Apr	Selected as 2006 export promising company by the SMBA		Sep	Distribution Agreement with Netnam (ISP) in Vietnam
	Jun	WAF, WISG acquired GS and NEP certification.		Oct	AIONCLOUD, SECaaS platform released.
		Nov		Distribution agreement with Indonesian NI company RML	
2007	Mar	Acquired patent for 'Profiling-based web service security system' and 'Remote web service security system'	2017	Feb	AISVA ODM contract with Artiza Networks (NI) in Japan
	Nov	AIDFW, DB released		July	Acquired patent for 'Web-DB user tracking method using data mining'.
				Dec	Signed White Label partnership about AIONCLOUD with AhnLab and Atto Research
2008	May	Acquired patent for 'Profiling based database security system'	2018	Mar	'Acquired patent for 'Automatic recognition system of protected service'.
	Jun	AIDFW, DB firewall acquired GS certification.		Apr	WMS service was released on AIONCLOUD
2009	Feb	AIVFW, VoIP firewall released.		May	AIONCLOUD was certified by NIPA for cloud quality and performance
	Apr	AIWAF and AIDFW acquired CC certification.		Aug	Acquired CC certificate for Web Application Firewall
	May	Acquired patent for 'Transparent proxy system and its packet processing method'.		Nov	Signed partnership about AIONCLOUD with MEGAZONE CLOUD
2010	Jan	Acquired patent for 'Integrated security by tracing correlation of log data between Web-DB'.		Dec	Signed partnership about AIWAF with UAE vendor
	May	AIVFW, VoIP firewall acquired CC certification.	Dec	Signed White Label partnership about AIONCLOUD with Japan vendor	
2011	Aug	Distribution agreement with BlueZebra in Thailand.	2019	Apr	U.S. corporation opened
2012	Jan	AIWAF-VE, WAF optimized for the Cloud environment was released.		Jun	Signed a joint SECaaS business agreement with a Japanese security firm
	Apr	Supplied AIDFW to the Thai National Assembly.	July	Acquired a patent for Method and system for accessing SSL via security devices	
2013	Feb	Distribution Agreement with TechLab Security in Malaysia	2020	Feb	Technology patent acquired for "URL processing device and method"
	Sep	AISWG, secure web gateway released.		Mar	Technology patent acquired for "session management method and security relay device"
2014	Feb	Joined OWASP (The Open Web Application Security Project) as a corporate member.		Jun	Technology patent acquired for "multi-string pattern search method and device"
				Jun	Technology patent acquired for "web-based illegal login blocking device and method using machine-learning.
2015	Mar	AIWAF-VE was published in AWS (Amazon Web Service) Market Place.	2021	Jan	Qualified as a countryviewer in Google Virus Total and Malicious URL information.
	Nov	AISVA, SSL visibility appliance released.		Jun	Excellent Corporation R&D Center Selection by Ministry of Science and ICT
	Dec	AISWG acquired CC and GS certification.		Aug	Zero Trust Network Access released.

03

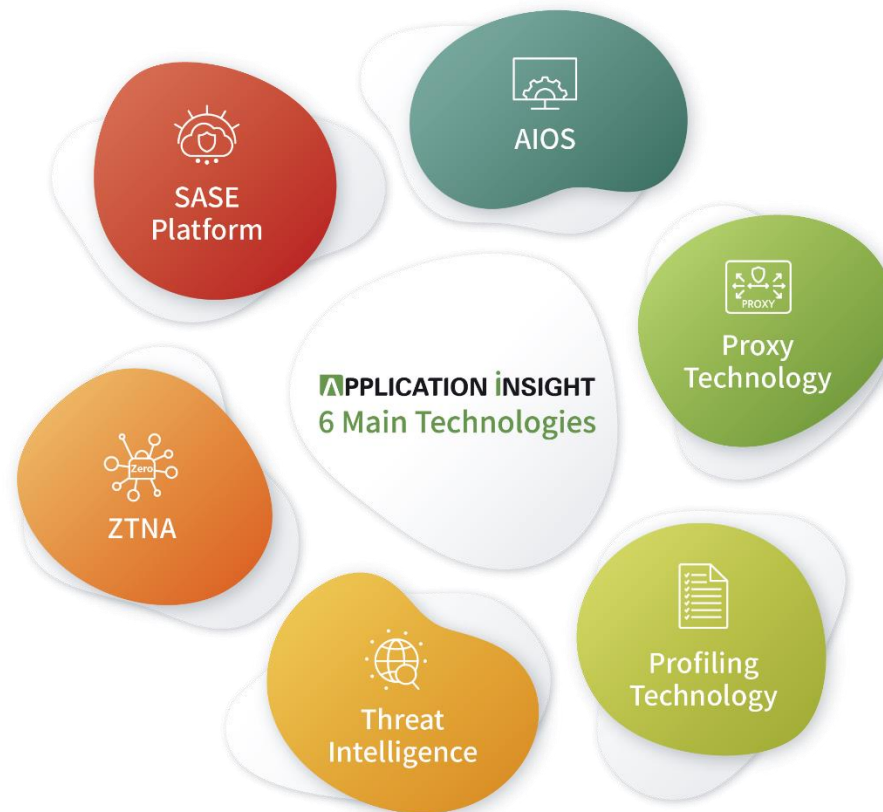
Organization



Division	Number
CEO	1
General & Administration	5
Sales	24
Marketing	8
Product Management	1
Engineering	42
Total	81



MONITORAPP's 6 core technologies bring "Insight" into "Application (7th layer of OSI 7 layers)," which is why our products have "AI" in front of them. Based on AIOS, proxy technology, SASE platform technology and on its core security technologies such as Profiling, Threat Intelligence, and ZTNA technology, it provides security solutions in various areas, including Web Application, SSL Inspection and Internet Access Control.

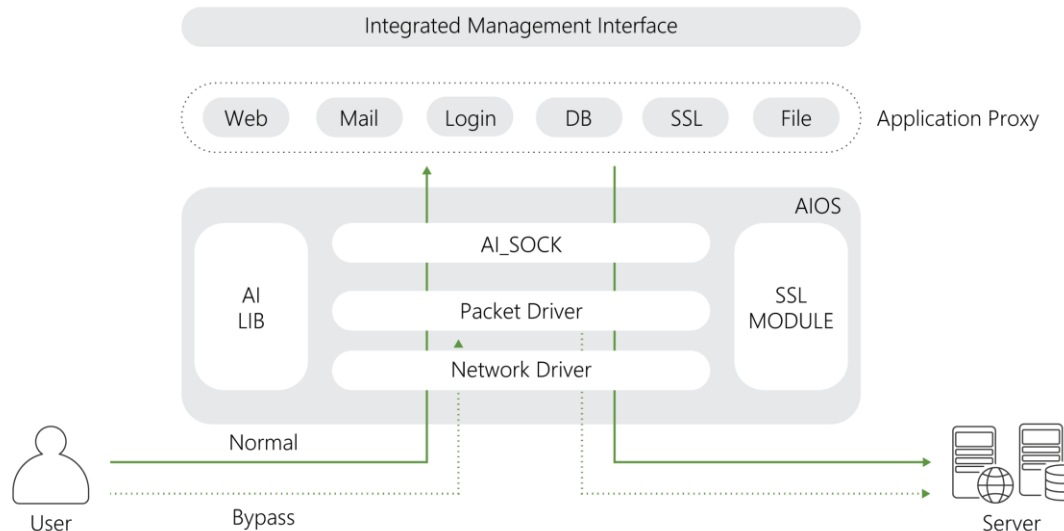


AIOS Platform

AIOS (APPLICATION INSIGHT OPERATING SYSTEM) is a common platform for all products of MONITORAPP.

- Packet Driver
 - ✓ Identifies protection target traffic and send protection traffic to AI_SOCK while bypassing relevant traffic
 - ✓ Transfer packet flow from eht1(Client) to eth2(server) or eth1(Client/Server) based on composed mode
- AI_SOCK : Transfer protection target traffic to proxy engine for flow control and status check with optimized TCP/IP stack.
- Application Proxy: Default mode & condition setting and traffic detection/block per each product
 - ✓ Process module per composed mode: Sniffing, Mirroring, SYN_TP, Transparent Proxy, Reverse Proxy, etc.

AIOS Platform

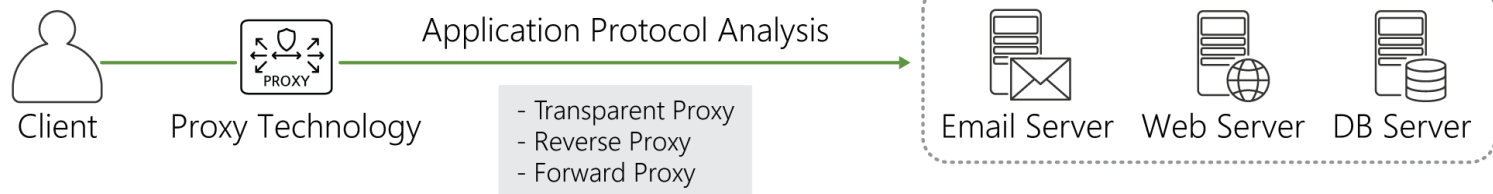


High Performance Proxy Technology

Transparent Proxy which is one of the core patents of MONITORAPP is stable and high-level inspection for application security

- Application proxy providing a profound level of security under complete analysis on WEB, DB and individual application protocol
- Providing equal function without changing of existing network
- Bypass function enabling stability and reliability

Proxy Technology

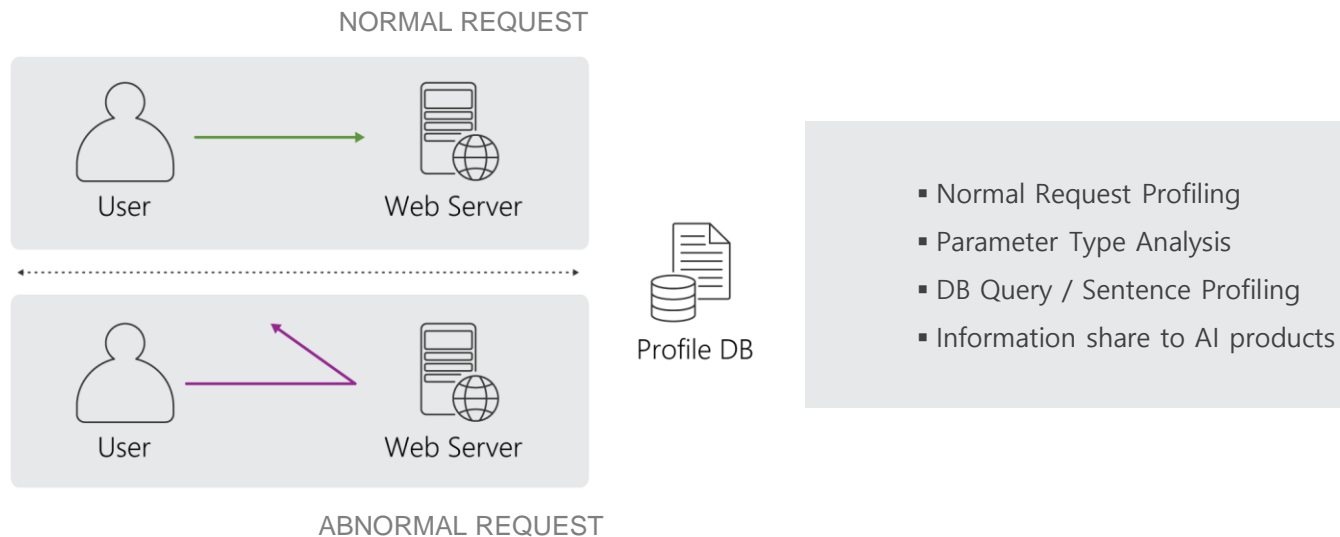


Adaptive Profiling Technology

Through our profiling technology, we provide an intelligent security system that can block unknown threats and automate the creation of complex security policies.

- Request profiling that triggers normal responses during a normal web user behavior
- Type analysis for individual parameters
- DB query/sentence profiling

Adaptive Profiling Technology

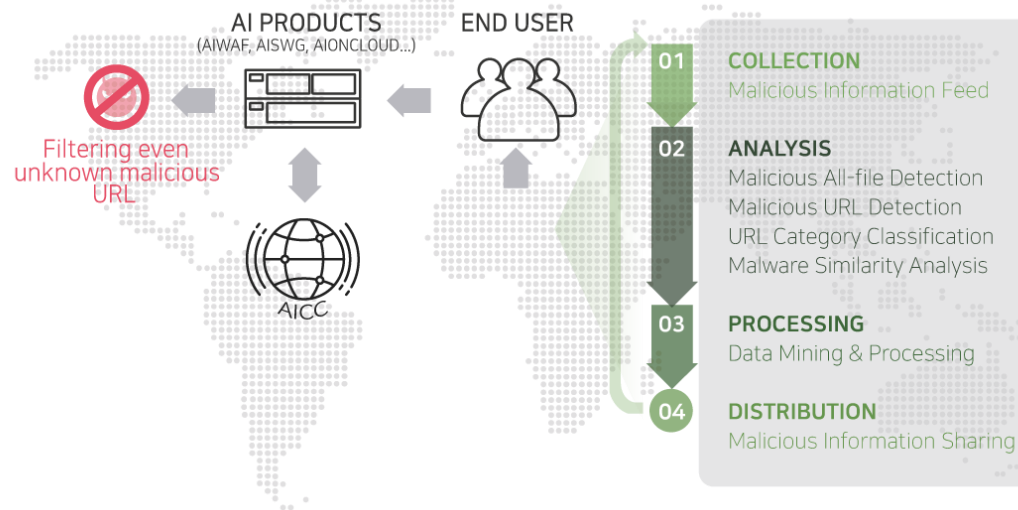


Threat Intelligence

Threat Intelligence : immediate response against threat worldwide by gathering, analyzing and sharing information based on vulnerabilities and behavior analysis.

- Signature based detection
- Reputation based detection
- Traffic transfer analysis
- Behavior based detection
- Real-time information gathering
- Data mining
- Big data analysis
- Device interlocking

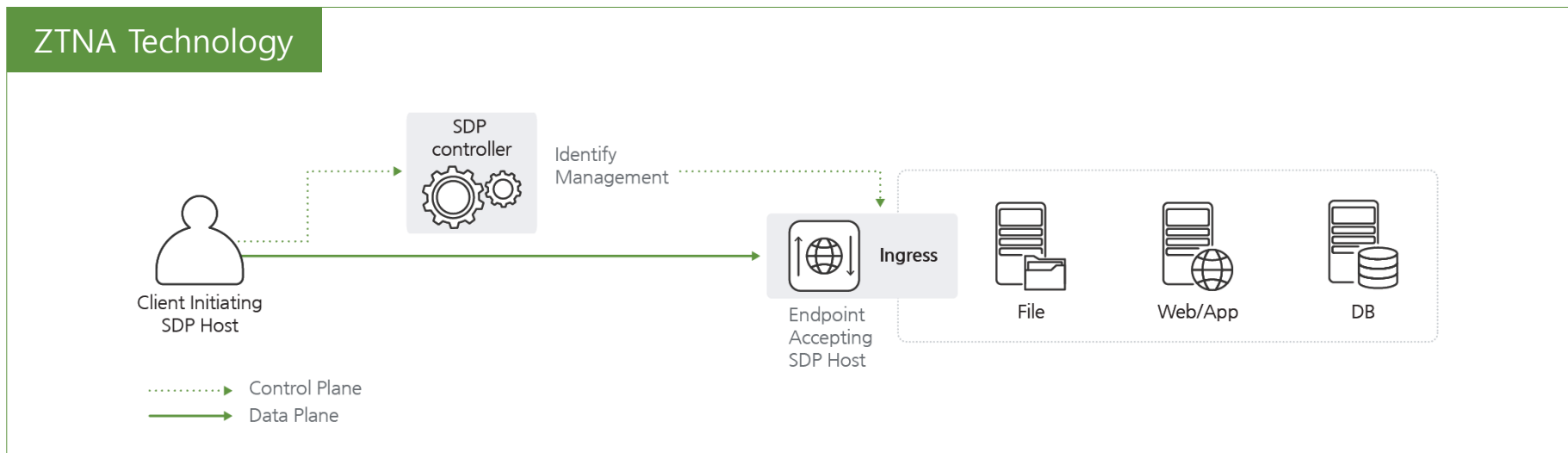
AI CLOUD Center for Threat Intelligence (AICC)



ZTNA(Zero Trust Network Access) Technology

MONITORAPP provides remote access technology that can provide an improved level of security compared to existing VPN technologies based on ZTNA technology. This new technology provides a safe remote access environment through Zero Trust-based authentication in non-face-to-face/remote access/cloud environments.

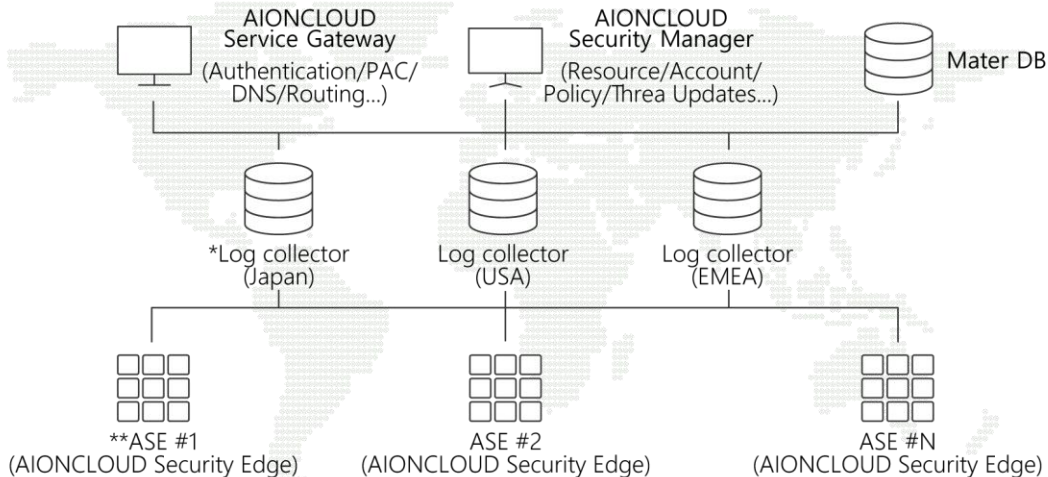
ZTNA technology implemented through SDP (Software Defined Perimeter) can supplement the weak authentication structure of VPN and is designed to implement user-centered security instead of network-centered security. Without exposing the network data, it is possible to configure the network based on the identity authenticated through the device and account, thereby improving the weak remote access structure of the VPN. In addition, MONITORAPP is able to provide a Secure Internet Access (SIA) service by using the on-site traffic forwarding technology to provide SASE-based cloud security service.



AIONCLOUD SECaaS Platform

MONITORAPP has a cloud security platform optimized for the SECaaS business. The SECaaS platform composes a multi-tenancy based service infrastructure through the interconnection of the service gateway, security manager, security edge, and log collector, and provides security services in the form of SECaaS through various security service modules. MONITORAPP's SECaaS brand, AIONCLOUD, provides CloudWAF, CloudWMS and CloudSWG services with our service infrastructure spread over 16 global regions and 40 datacenters.

AIONCLOUD SECaaS Platform



*Log Collector **ASE(AIONCLOUD Security Edge)

- Security log (Block/Detect...)
- Traffic log
- Local Manager
- Security Service Module
- Auth G/W

AIONCLOUD Service Gateway

- Authentication
- Access Gateway
- DNS Service
- Service Routing

AIONCLOUD Security Manager

- Account Management
- Global Service Infra Pooling/Provisioning
- Policy Management
- Real-time Threat Updates

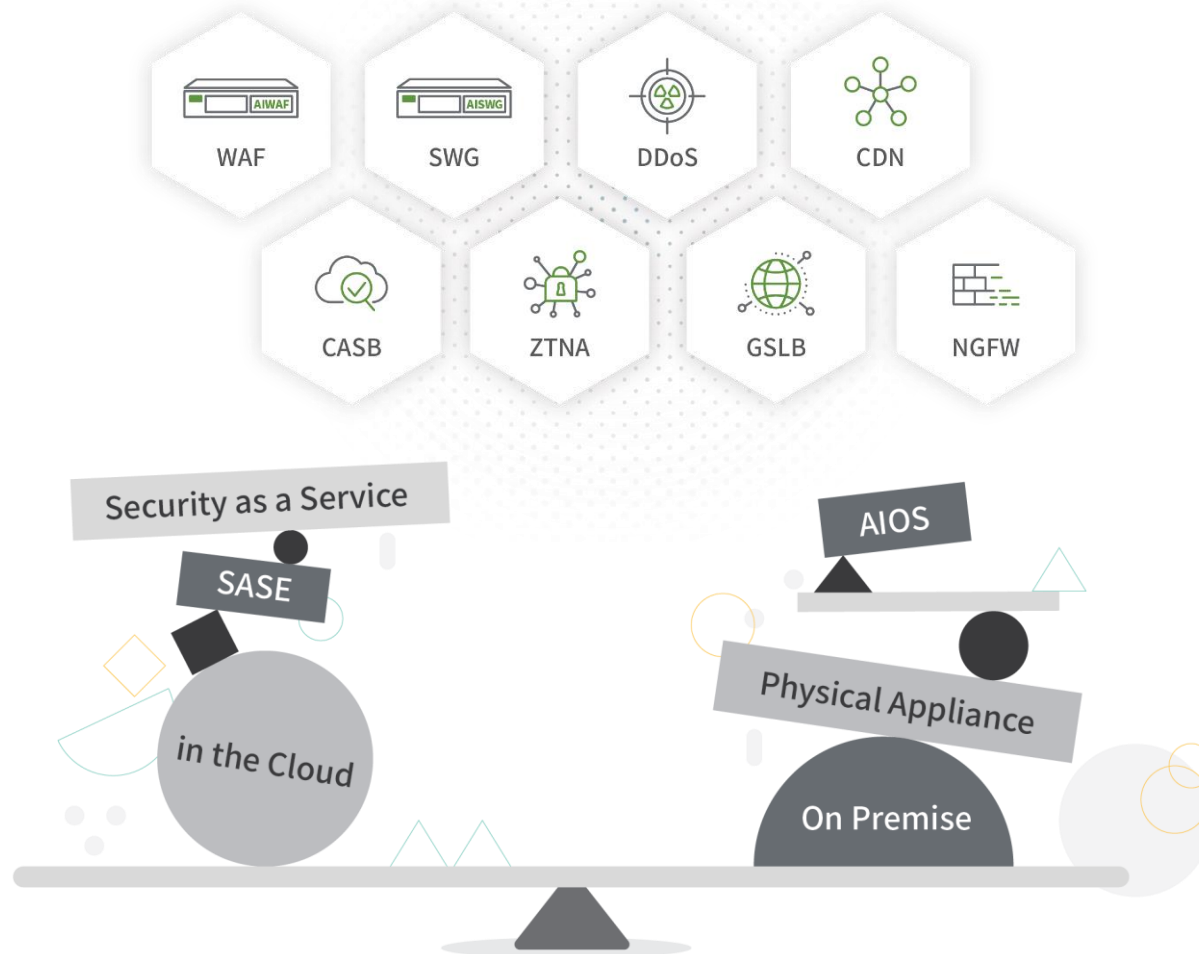
Log Collector

- Distribute Database System
- User Logs Consolidation
- Security / Traffic log
- Interworking with User's SIEM

AIONCLOUD Security Edge

- Scalable Service Infra Edge
- Reverse/Forward Proxy
- Security Service Module
- SSL Inspection Engine
- Local Auth Gateway

B2B Cyber Security in the Cloud & On Premise





SECaaS

It is a service that provides security that customers want in the cloud. We deliver SECaaS AIONCLOUD worldwide through our self-developed AISASE platform



Virtual Appliance

Achieve instant web security with a variety of configuration options and automation elements optimized for cloud environments to focus your security governments on your business.



Public Cloud

We have hundreds of references across various IaaS platforms and it is a proven solution registered on AWS, GCP and MS Azure. Broad range of subscription options with Pay-As-You-Go pricing so that the customers can pick a product that best suits their business needs



Physical Appliance

MONITORAPP solutions are built on their own platform AIOS. Applies various security technologies (proxy, profiling, correlation, TI). AIOS consists of network driver, packet driver, AI_SOCKET, SSL module, and ALLIB

MONITORAPP

With multiple knowledge asset patents and certificates including new technology from ministry of IT in Korea, MONITORAPP has more than 3,000 clients around the nation. MONITORAPP plans to extent its business area based on these reputations.



[07/03/08]
Dynamic web application security technology through profiling technique



[07/06/29]
Remote web application service security and delivery system through the internet



[08/05/21]
Profiling-based security system and process



[09/05/12]
Transparent proxy system and other packing processing system



[10/01/07]
Integrated security system and process by web-database attack tracking log data tracking



[17/07/03]
Web-database user tracking system via mining



[18/03/14]
System for automatic recognition of protected services



[19/07/12]
System for supporting access to sites where SSL connection is not possible using security devices



[20/03/11]
Session management process and security relay device using the same process



[20/05/12]
URL processing device and system



[20/06/24]
Multi-string pattern search process and device



[20/06/30]
Web-based illegal login blocking device and machine-learning processing



[21/02/01]
proxy-based security systems handle traffic in asynchronous redundancy environments

Global Reference

Since 2009, MONITORAPP has entered the global market with excellent security solutions based on high-performance application proxy technology, showing rapid growth, and drawing visible results. With a stable sales network with global partners in Southeast Asia and Middle East such as Thailand, Malaysia, Vietnam, and Indonesia, and UAE, and a corporation in Japan (established in 2016), we are actively exporting our products and services. In 2019, we established a corporation in the U.S. and have been marketing AIONCLOUD, a cloud-based web security service platform, and we are expected to expand to the European market as well.

Overseas Market





02

Product Line Up

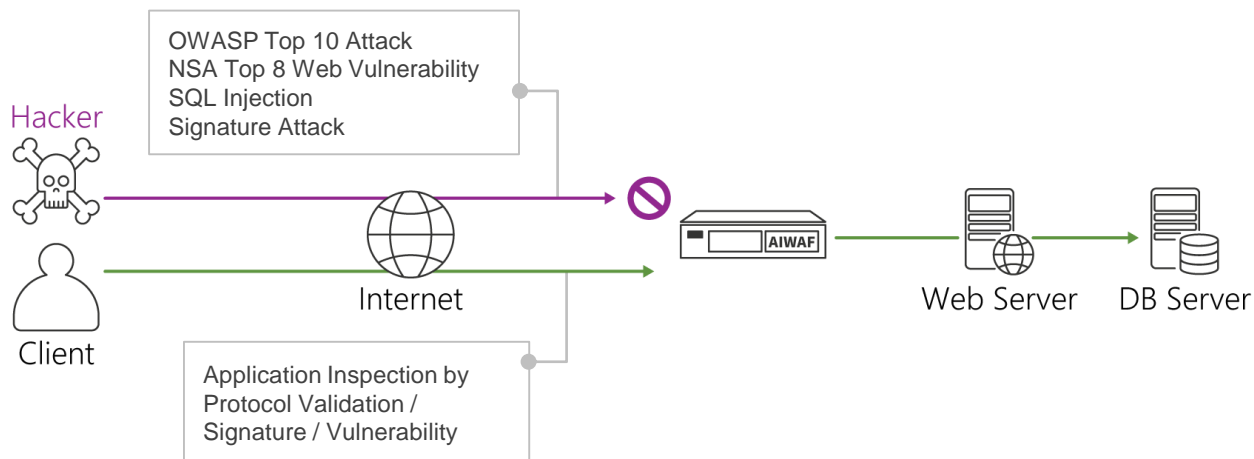
AIWAF (APPLICATION INSIGHT WEB APPLICATION FIREWALL) supports signature-based with periodic updates and profile-based positive policies in accordance with complete analysis of HTTP protocol and protects web services with various optional features against external hackings.

- Core Technology

- Proactive response to various web threats (Black Client IP, C&C IP, etc.) through real-time connection with Threat Intelligence Platform
- Automatic bypass according to system status
- Non HTTP traffic control
- Logging response data and request to all detection logs

- Separate dashboard per domain
- Web service status monitoring (availability rate, response speed, status)
- Bot Detection / CAPTCHA
- Normalization on the traffic that is trying to bypass the security
- Provides self-testing function to verify detection

APPLICATION INSIGHT WAF Function



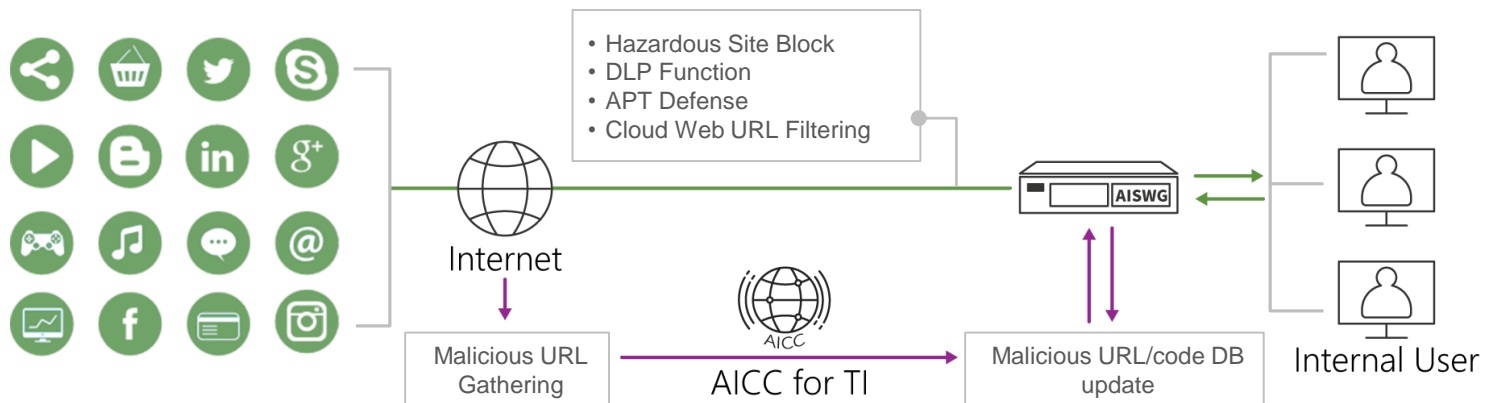
AISWG(APPLICATION INSIGHT SECURE WEB GATEWAY) is a powerful security web gateway to provide the flexibility in business requirements and protect internal web users of the corporation to assure secure web usage environment from the threat of various web attacks.

- Core Technology

- Real-time update with connection to Threat Intelligence(AICC)
- SSL/TLS encrypted traffic support
- NAT/DHCP environment support (user verification)
- Request/response data analysis (granular web service control)

- URL filtering (65 category filters)
 - > Non-work related site control (59) + malicious site control (6)
- Full parsing on the HTTP protocol
 - Malicious code detection within the data
 - Confidential data leak detection
 - Webmail service control by feature

APPLICATION INSIGHT SWG Function



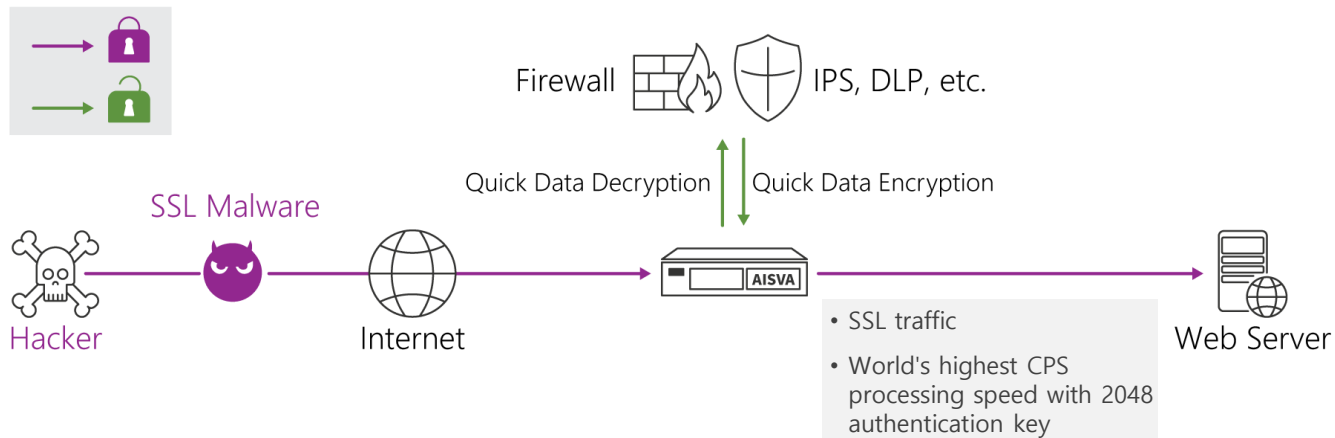
AISVA (APPLICATION INSIGHT SSL VISIBILITY APPLIANCE) is a specialized appliance that provides visibility of SSL traffic so that strong security policies can be applied to encrypted traffic of the existing security equipment by providing encryption and decryption of SSL traffic.

- Core Technology

- Inbound decryption: server IP: PORT, certificate and private key registration
- Outbound decryption
- Certificate and private key creation and management
- Automatically sort encrypted traffic (No need for an additional decryption target setting)

- Decryption of all SSL/TLS regardless of application type
- Simultaneous bidirectional (inbound/outbound) decryption
- NAT, asynchronous network environment support
- Automatic management of undecryptable websites (local learning/DB update)
- Health check on the section linked to the security system

APPLICATION INSIGHT SVA Function





03

AIONCLOUD



- AIONCLOUD (SECaaS brand) offers a variety of web security services.
- It is a SASE platform that enables the application of the same security policy anywhere in the world.
- We provide a Web Application Firewall (WAF), website malware scanner (WMS) service, and secure web gateway (SWG) service.
- You can experience web server protection and improved website performance by blocking various cyber threats.



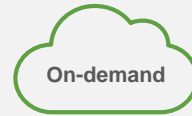
NO Installation Fee
No need for SW/HW purchases or installation cost



Inexpensive Management Cost
Reduced maintenance cost



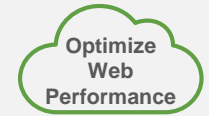
Scalability
PAY AS YOU GO



On-demand
Eliminates backhaul traffic costs to the HQ



Real-time Update
Real-time security updates



Optimize Web Performance
Optimized website performance and security

AIONCLOUD Service Line Up



WAF (Web Application Firewall)

Web firewall service to improve not only security but also performance

- > Various web attack protection
- > Block abnormal access
- > Personal information leak prevention
- > Web performance optimization
- > 5GB free per month



WMS (Website Malware Scanner)

Diagnosis service for website malware extraction

- > Malicious URL detection
- > Automatic website visit and diagnosis
- > Malicious code transit/distribution site abuse diagnosis
- > Diagnosis result report and notification



SWG (Secure Web Gateway)

Web & URL filtering, DLP, and secure internet access to all users

- > URL Filtering
- > Malicious URL Detection
- > Information leak prevention
- > Full SSL traffic Inspection
- > Traffic Forwarding to the Cloud

WAF(Web Application Firewall)

- The service does not require HW / SW installation, maintenance, license and provides powerful web security and optimized web performance
- Block various web attack / abnormal access / personal information leakage
- Simple subscription / install / setting / management via SECaaS platform

- Main Feature

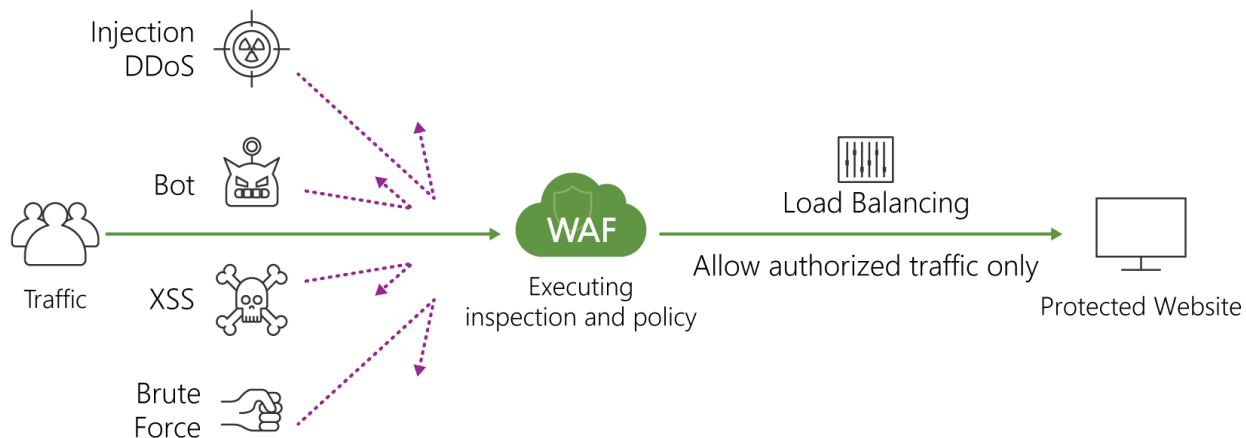
▪ WAF service protects website from various attacks.

- | | |
|--------------------------------|-------------------------------|
| - OWASP Top 10 Vulnerabilities | - Malicious Bot / Scanner |
| - Brute Force Attack | - Application Vulnerabilities |
| - Malicious File | - SQL / Command Injection |
| - System File Access | - HTTP DDoS Attack |
| - CSRF | - Webshell Attack |

▪ WAF service optimizes website operation.

- Multi Domain Management
- Web Acceleration with Web Caching
- SSL Certificate Issue

WAF Function



WMS(Website Malware Scanner)

- Diagnosis Service to Extract Malware from Websites
- Visit the website regularly and diagnose malware infection for quick and early response and minimizing damage
- Execute multi-level analysis with static/dynamic analysis engine (MUD; Malicious URL Detection)

- Main Feature

▪ Website Diagnosis

- Provide infection diagnosis results & detailed view
- Provide manual diagnosis feature
- Provide information on Detection Time / Server IP / Server Port / Detected URL / Response data / Response data Size
- User can view the reputation.

▪ Statistical Information

- Provide each user with user-friendly interface
- Show URLs diagnosis results / number of malicious & diagnosed URLs / progress status
- Statistical information on malware analysis by period

▪ Website Management

- User can manage registered website
- Protocol / domain / path / diagnosis period / automatic alert setting feature

▪ Threat Information

- Provide Threat Information gathered from AICC (Application Insight Cloud Center)
- Correlation analysis with malware information collected and processed for many years

WMS's Analysis Process



1)

Visit website regularly



2)

Discover Suspicious Event via Static analysis



3)

Detect execution path of malware via Dynamic analysis



4)

Extract malicious URLs and code



5)

Analyze if website is exploited as malware origin / stop



6)

Automatically send analysis results with reports / alert

SWG(Secure Web Gateway)

- Complete a secure web gateway solution as a service
- Configured in mere minutes and easy to use
- No matter where you are, the same high level of security is provided. It is always-on

- Main Feature

▪ URL Filtering

The SWG service controls the client's internet access by checking for suspicious links or URL's containing suspicious files.

- Category-based filtering: malicious software/botnet/spam/abused site/phishing/fraud/anonymous service/ network error/unused domain control

▪ Malicious URL Detection

Controls URL's with malicious codes, based on the malicious code penetration pattern profiling and blocks access to harmful sites based on URL category classification.

- MUD technology application (linked with TI platform AICC): direct website visit/analysis, malicious code detection/advanced malicious site filtering

▪ DLP

Network-based DLP to prevent leakage of personal information or internal documents from PC users.

- Block file upload through a bulletin board or web hard drive
- Prevent data leak through keyword file size control, etc.
- Prevent information leak through compressed files and file attachments

▪ SSL Traffic Inspection

SWG service provides all security functions, such as self-encryption and SSL traffic control (HTTPS), without an additional installation.

- Provides full SSL visibility by controlling outbound traffic from client to the server
- Automatic bypass of sites that cannot communicate with SSL
- Automatic distribution of SSL certificates

SWG Function



THANK YOU