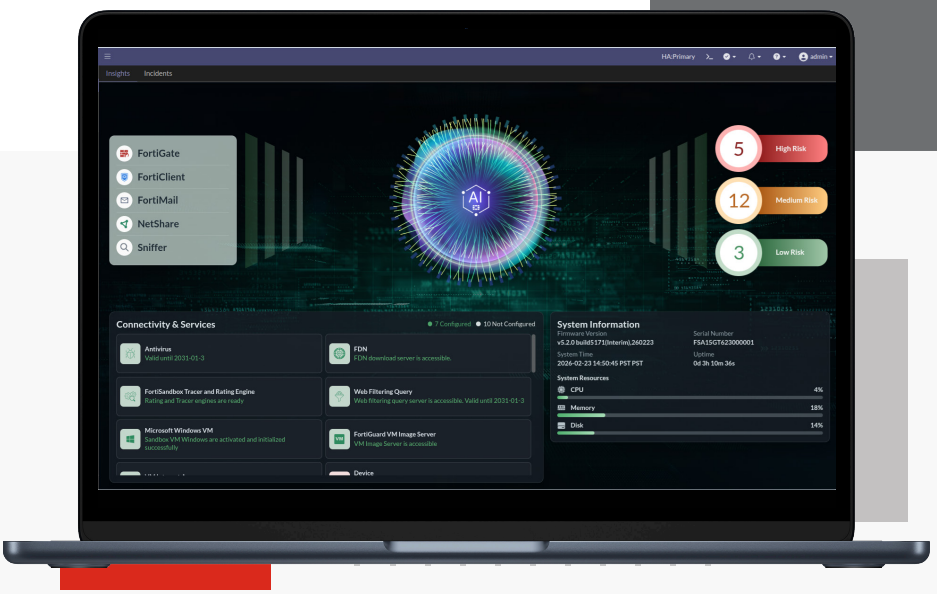
Data Sheet

FortiSandbox

Powered by a native, state-of-the-art AI engine, FortiSandbox delivers real-time defense against evasive, previously unseen, and AI-driven threats.



Highlights

AI-Powered Fast Inspection

Classifies most files in seconds with pre-execution analysis for real-time protection.

Multi-Layer Threat Detection

Combines AI and behavioral analysis to uncover advanced and evasive threats.

Flexible Deployment

Supports on-prem, cloud, and SaaS across any environment.

Actionable Threat Intelligence

Delivers unified visibility with IOCs and forensic insights for rapid response.

FortiSandbox: Multi-Layer AI-Driven Threat Analysis with Dynamic Behavioral Validation

As cyber threats become increasingly evasive and AI-driven, organizations need defenses that continuously adapt to new attack techniques. FortiSandbox combines advanced malware analysis, continuously evolving machine learning, and behavioral intelligence to detect malicious intent with high confidence and near-zero false positives. Most files are classified within seconds using AI-driven inspection, while deeper behavioral analysis is selectively applied to uncover sophisticated and evasive threats.

Supporting multiple operating systems and file types, FortiSandbox provides actionable threat intelligence and detailed reporting to accelerate investigation and response. Native integration with the Fortinet Security Fabric and a broad ecosystem of security tools enables coordinated threat prevention across email, endpoints, web traffic, network shares, and the network edge. Available as an on-premises appliance, cloud service, or hosted offering, FortiSandbox scales to meet the needs of organizations of any size.

Confirming FortiSandbox meets strict U.S. security standards

Aligning with strict requirements for safeguarding protected health information (PHI)

Demonstrating independent validation of its security, availability, and confidentiality controls

What's New in FortiSandbox v5.2

Stronger Security. Smarter Operations. Greater Control.

Delivering powerful new capabilities to help you secure, manage, and scale with confidence.

Faster Detection and Analysis

- Dynamic scans complete in as little as 15 seconds
- New AV engine improves ICAP scan performance
- Lightning Mode reduces storage for clean files

Improved Threat Visibility and Intelligence

- New threat intelligence workspace simplifies investigations
- Consolidated MITRE ATT&CK mapping for threats
- Enhanced reports with FortiGuard intelligence context

Enhanced Security and Protection

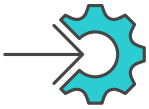
- Data-at-rest encryption secures sensitive sandbox data
- Automated IOC validation enriches threat intelligence
- Expanded inline blocking across major operating systems

Better User Experience and Reporting

- Modern Neutrino GUI improves usability and consistency
- Improved Job Details and Tree View readability
- Enhanced CSV and TAC reporting capabilities

Expanded Integration and Automation

- AWS S3 Sentinel Mode enables event-driven scanning
- FortiSOAR webhooks automate detection workflows
- Supports up to 10,000 FortiClient endpoints



Broader Platform and Deployment Support

- Hyper-V support for Windows Server 2025
- Android, Linux, macOS support for Inline Block
- New Android Docker analysis environment support

Stronger Administration and Operations

- Best-practice compliance checklists simplify administration
- Centralized certificate authority management controls access
- Conserve mode alerts improve operational awareness

FSA v5.2

Built for a More Secure, Efficient and Connected Future

Stronger Security

Advanced encryption, access control, and protection

Smarter Operations

Better visibility, logging, and automation for IT efficiency

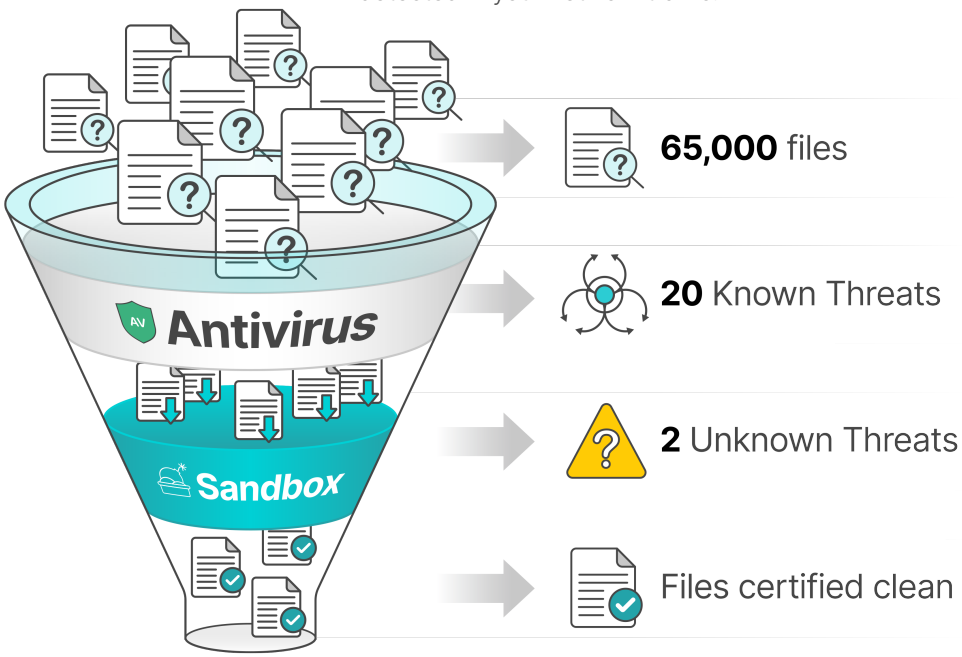
Greater Control

Flexible authentication, policy management, and seamless integrations

The Detection Gap: Why Traditional Antivirus Is Not Enough

To understand the real-world effectiveness of traditional antivirus (AV) versus advanced sandboxing, Fortinet analyzed telemetry collected directly from production environments with telemetry submission and cloud service enabled.

Over a continuous two-week period, data was gathered from 3000 deployed FortiGate devices operating in live customer networks. These devices were configured with both Antivirus (AV) and Sandbox inspection enabled, providing a realistic view of how threats are encountered and detected in your network traffic.



Key findings

- Each device inspected an average of 65 000 files using its local AV engine
- Traditional AV consistently identified approximately 20 known malware samples
- Those files were inspected by the Cloud Sandbox which uncovered two previously unknown (zero-day) malware

What This Means

While traditional AV remains highly effective at identifying known threats, it inherently relies on signatures and prior knowledge. The additional malware uncovered by sandboxing represents previously unseen or evasive threats—the very category most likely to bypass conventional defenses.

Even in well-protected environments, this translates to:

- 10% additional threats will be encountered that would go undetected without sandboxing
- A steady stream of unknown malware is actively traversing real networks
- A clear gap exists between known threat detection and actual threat exposure

The Takeaway

These findings are not from a controlled lab—they reflect live network conditions across typical enterprise environments. Organizations relying on AV alone are likely to stop a significant percentage of known threats, but silently missing unknown, advanced malware.

FortiSandbox closes this gap by detonating suspicious files, identifying zero-day threats that AV is missing, and feeding intelligence back into the security fabric—transforming unknown threats into known protections before they can cause harm.

Industry Standards: Driving Strategic Cyber Defense

As the modern threat landscape evolves—with AI-powered and evasive attacks bypassing traditional defenses—sandboxing has become a foundational layer for detecting unknown and zero-day threats. Modern sandboxing solutions, such as FortiSandbox, combine AI-driven analysis with dynamic inspection to provide both rapid detection and deep threat visibility.

Framework	Region	Requirement Summary	Primary Industry or Sector
PCI DSS v4.0		Mandates anti-malware and recommends advanced techniques (heuristics/ behavioral analysis).	Retail, E-commerce, Financial Services, Hospitality, Call Centers
CMMC 2.0		Mandates malware protection.	Defense, Aerospace, Government Contractors
Singapore CCoP		Mandates behavior-based detection (such as sandboxing).	Critical Information Infrastructure (Energy, Water, Finance, Healthcare)
EU NIS2		Mandates risk-based cybersecurity at national level.	Critical Infrastructure, Digital Services, Energy, Telecom
NIST CSF v2.0		Recommends malware detection as an outcome (such as malicious code is detected).	Critical Infrastructure, Government, Finance, Healthcare, Enterprise
Japan METI/IPA		Recommends advanced malware detection (such as sandboxing).	Manufacturing, Technology, Energy, Critical Infrastructure
EU CSA		May require advanced malware detection for high assurance levels and certification.	IT Products and Services (EU Market)

Note: The industry sectors under critical infrastructure are energy, finance, health, telecommunications, transport, and water.

Sandboxing solutions like FortiSandbox offer powerful detection and protection. However, some security team members still have some doubts about the performance of sandboxing. Let's clear the air on that.

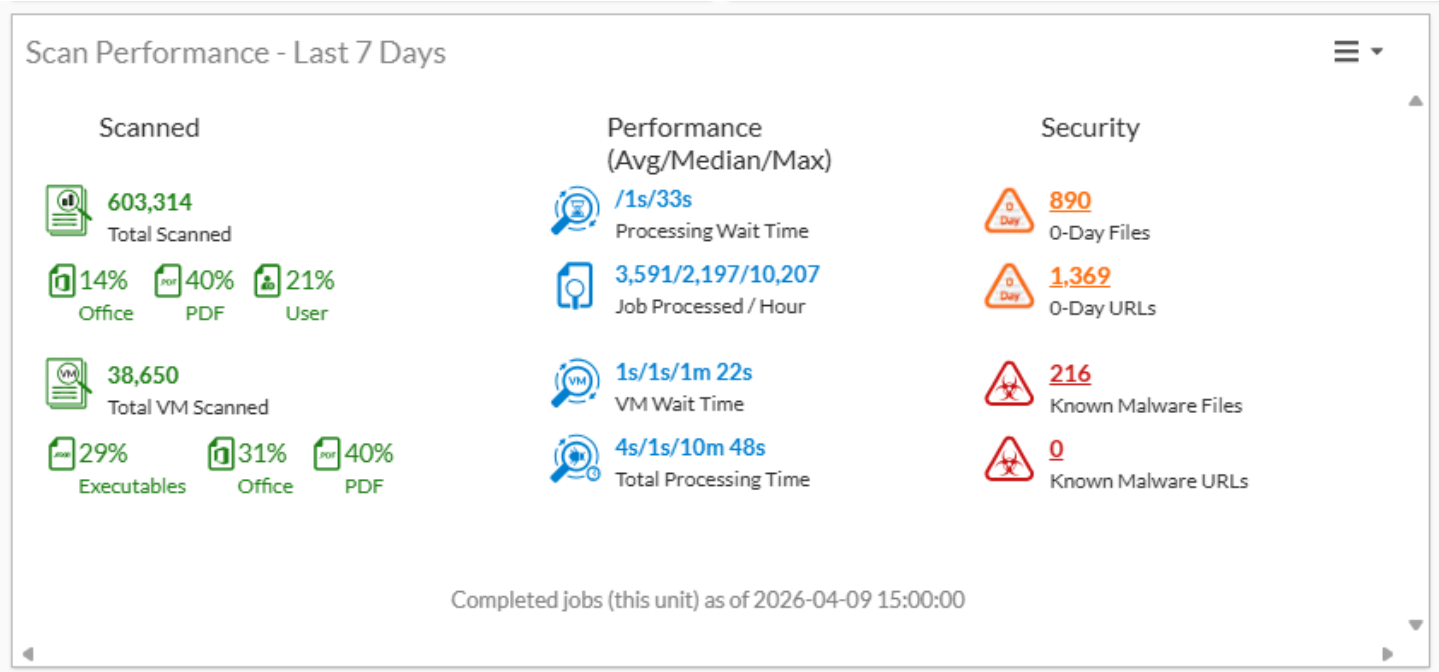
Performance Without Compromise: High-Speed Analysis

FortiSandbox delivers high-speed threat analysis through a multi-layer inspection pipeline. AI-based static analysis rapidly classifies the majority of files, while dynamic behavioral analysis is selectively applied to validate advanced threats.

The Static AI Scan can process up to 50 files per second, immediately identifying known malicious attributes and returning a threat verdict within milliseconds. If a file contains active content (such as embedded URLs, scripts, macros, or executables) but shows no obvious static threats, it is passed to the Dynamic AI Scan, which spins up an isolated virtual environment to detonate and observe the file's behavior—typically within a few seconds.

In a well-resourced production environment, most files are scanned in under a second, with a median scan time of just five seconds. This time-frame is well within acceptable thresholds for network, email, and endpoint solutions to safely hold files during analysis—ensuring high detection efficacy without slowing down operations.

With speed no longer a barrier, it's time to evaluate what really sets sandboxing solutions apart.



The screenshot illustrates the performance of FortiSandbox over the last seven days, highlighting its ability to quickly and efficiently scan a high volume of files and URLs. Over 600 thousand files and URLs were scanned, with only 6.4% (38,650) requiring the more time-intensive Dynamic Scan. The majority of files were processed rapidly, with a median total processing time of just one second and an average of four seconds. Within the efficient scanning process, a handful of suspicious detections were flagged, demonstrating the system ability to balance speed with thorough threat analysis.

Only a small percentage of files require dynamic behavioral analysis, enabling high throughput without sacrificing detection depth.

Advanced Intelligence: PAIX and Core Technologies

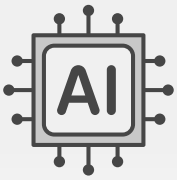
FortiSandbox combines advanced threat detection with performance and flexibility, making it a powerful addition to any security stack. This section summarizes key features that define its effectiveness—from AI-driven static and dynamic analysis to flexible deployment models and seamless integration across network, endpoint, email, and cloud environments. Whether you are looking for speed, scalability, or automated response, FortiSandbox delivers where it matters most.

PAIX: The Cyber-ML Engine Behind Execution-Less Detection

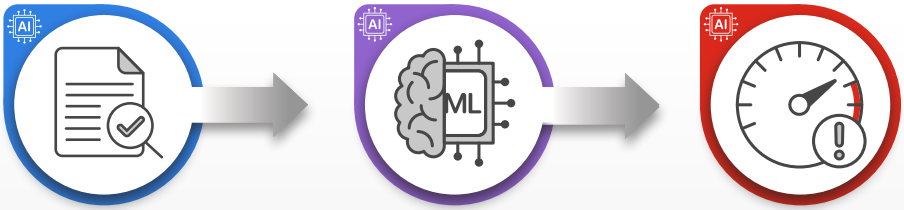
PAIX (Pre-Execution AI Expert) is FortiSandbox's Cyber-ML engine, providing execution-less threat detection through advanced machine learning trained on millions of malware and cleanware samples. Built to counter rapidly evolving threats, PAIX identifies malicious intent beyond the reach of traditional signatures while delivering rapid verdicts with near-zero false positives. Suspicious files can then be escalated to dynamic behavioral analysis for deeper inspection and validation.

By applying Cyber-ML to file structure, embedded content, and threat indicators, PAIX identifies both known and unknown threats in seconds—without requiring files to execute.

PAIX uses **artificial intelligence** to analyze files before they run...



Fast, Accurate Detection—Before Files Execute



Deep File Inspection

Examines file structure, embedded content, and patterns

AI-Based Classification

Uses machine learning to analyze a file's characteristics and predict whether it is likely to be malicious, suspicious, or safe—without needing to run the file

Instant Verdicts

Delivers results in seconds for the majority of files, reserving deeper analysis only for the smaller number of higher-risk samples

- **Real-Time Protection**: Detects unknown threats in seconds—before they can execute or cause harm
- **Broad File Coverage**: PAIX supports analysis across common attack vectors: Windows executables (PE), PDF documents, Microsoft Office files, Linux executables (ELF), and Script-based.
- **Proven at Scale**: Trained on millions of real-world malware samples, our AI engine delivers signatureless detection with ~90% efficacy and a false positive rate of less than 0.1%.
- **Resilient Against Evasion**: Not reliant on signatures—effective against obfuscation, polymorphism, and code changes
- **Optimized for Speed and Scale**: Reduces the need for full behavioral analysis
- **Support Inline blocking**: Faster verdicts on most files with high efficacy on FGT, FCT, and FML
- **Stop Threats Before They Run**: PAIX enables FortiSandbox to deliver execution-less detection at scale, reducing risk while maintaining performance—making it ideal for high-throughput environments such as network and web traffic, endpoint and email security.

Dynamic Analysis: Unleashing the Power of Full-System Emulation

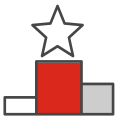
While static AI is an essential first line of defense, Dynamic Scan represents the ultimate authority in threat detection. By executing suspicious files within a secure, isolated sandbox, this layer observes "living" behavior to catch what static filters cannot.

- **Behavioral Observation**: Utilizes Full-System Emulation to mimic a real user environment, identifying attempts to modify registries, establish unauthorized network connections, or encrypt data.
- **Counter-Evasion**: Uses Advanced Evasion Resistance to simulate human-like interactions—such as mouse movements and keystrokes—to force "sandbox-aware" malware to reveal its intent.
- **MITRE-Aligned Insights**: Automatically maps discovered techniques to the MITRE ATT&CK framework, providing SecOps teams with captured packets, tracer logs, and malware screenshots.

Real-Time Phishing Detection and Prevention

Includes a dedicated module to catch zero-day credential harvesting and malicious URLs.

- **URL Extraction**: Automatically extracts and scans embedded URLs from emails, PDFs, and Office documents.
- **Live Web Analysis**: Downloads and analyzes web pages in real-time, identifying visual clones of login portals or "masked" malicious redirects.
- **Proactive Blocking**: Integrated with the Fortinet Security Fabric, once a phishing site is identified, it is blocked across the entire network in real-time.



Intelligent Threat Investigation with MITRE-Aligned Insights

FortiSandbox provides a comprehensive Job Detail Report for threat analysis and intelligence for Virtual Security Analyst. The report maps discovered malware techniques to MITRE ATT&CK framework with built-in powerful investigative tools that allow Security Operations (SecOps) teams to download captured packets, original file, tracer log, and malware screenshot. STIX 2.0 compliant IOCs provide rich threat intelligence and actionable insight after files are examined.

FortiSandbox also allows SecOps teams to optionally record a video or interact with malware in a simulated environment.

Flexible and Scalable Universal VM Deployment

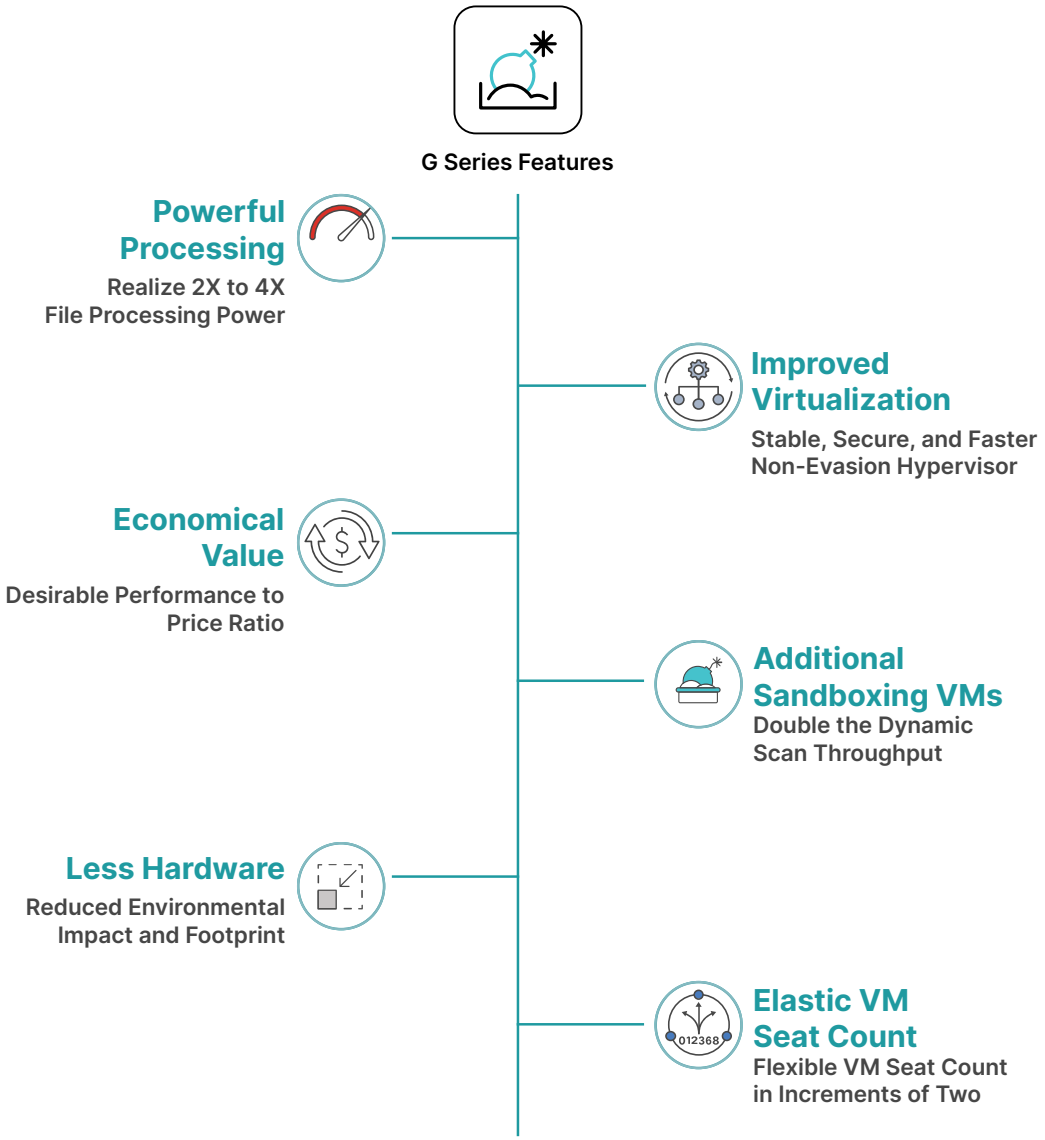
Universal VM is an all-in-one license for the flexibility to choose any local, cloud, or custom virtual machine (VM) type and operating system. It detaches VM licenses from the OS licenses to reduce licensing complexity.

Resilient High-Availability Architecture for Continuous Protection

The FortiSandbox provides native clustering support of up to 99 worker nodes that expand throughput capacity providing uninterrupted critical operations.

The G Series: Evolution of Power and Intelligence

Leveraging our previous F and E models*, FortiSandbox 3000G, 1500G, and 500G provide cutting edge technological advancements, performance, real-time sharing of threat intelligence across multiple geographical locations, and integration with Fortinet's Security Fabric and third party providers. With twice the VM capacity and file processing capabilities, our G Series delivers unparalleled stability, the highest detection accuracy, and best-breed throughput, while offering flexible and cost-effective deployment solutions.



*The 500G replaces the 500F, and the 1500G replaces the 1000F and 2000E.

Stronger Together: Integrated Ecosystem Defense

FortiSandbox integrates seamlessly across the Fortinet Security Fabric and third-party solutions with flexible deployment options across any environment, enabling advanced threat detection and automated response.

1. Next-Generation Firewall (NGFW) with Inline Blocking Option

Use Case: Real-time blocking of advanced threats at the network perimeter

When integrated with FortiSandbox, FortiGate NGFW becomes a proactive defense system capable of detecting and blocking sophisticated threats **before they enter the network**. It uses **Inline Scanning**, meaning files and content passing through the firewall (via HTTP, FTP, SMTP) are actively inspected **in real time**.

Suspicious files that cannot be confirmed as safe using static inspection are automatically sent to **FortiSandbox**. If the sandbox determines the file is malicious—through static or dynamic analysis—FortiGate can **immediately block the file**, quarantine the session, or take other actions, all **without delay to users or services**.

With AI-driven detection, high throughput, and tight Security Fabric integration, this setup enables **zero-day threat detection and inline prevention**, offering deep security **without the performance penalty**.

2. Secure Email Gateway (SEG)

Use Case: Prevent phishing, malware, and ransomware via email

Emails with attachments are inspected using AI-based analysis for rapid classification, with suspicious files escalated to behavioral analysis—ensuring protection before delivery. Designed for real-time email workflows with seconds-level verdicting.

3. Endpoint Security

Use Case: Endpoint-level detection and response

When Endpoint Security solutions such as FortiClient or FortiEDR, encounter unknown files they forward those to FortiSandbox for analysis. If malware is detected, the endpoint agent can kill the process, isolate the host, or share IOCs with other devices—**creating a fast, coordinated response across users and systems**.

4. Web Proxy

Use Case: Block advanced web threats from downloads and scripts

Proxy devices such as FortiProxy filter web traffic and enforce policies, while FortiSandbox adds deep analysis for suspicious downloads and web content. Together, they detect and block zero-day malware, drive-by downloads, and malicious scripts—**before they ever reach the endpoint**.

5. Shared Storage

Use Case: Analyze files from SMB/NFS shares, cloud storage (e.g. OneDrive), and web uploads

FortiSandbox can scan files from shared folders and upload portals—including SMB, NFS, public shares, and cloud storage like OneDrive. By detecting hidden malware in these locations, it helps **stop lateral movement and insider threats** before they spread.

6. FortiAnalyzer and FortiSIEM

Use Case: Centralized visibility, correlation, and automated response

FortiSandbox shares IOCs and threat intelligence with FortiAnalyzer and FortiSIEM. These platforms correlate events, generate alerts, and trigger workflows—**accelerating detection, triage, and mitigation across the enterprise**.

7. Third Party Integrations (via APIs or ICAP)

Use Case: Extend sandboxing to external products

FortiSandbox supports **ICAP** and **RESTful APIs**, allowing integration with third-party tools like other NGFWs, proxies, SIEMs, or email gateways. This integration enables **sandbox-as-a-service** functionality even outside of Fortinet environments.

FortiSandbox doesn't work in isolation—it integrates deeply across the Fortinet Security Fabric. From firewalls and email to endpoints and storage, FortiSandbox applies a multi-layer analysis pipeline to balance speed and detection depth.

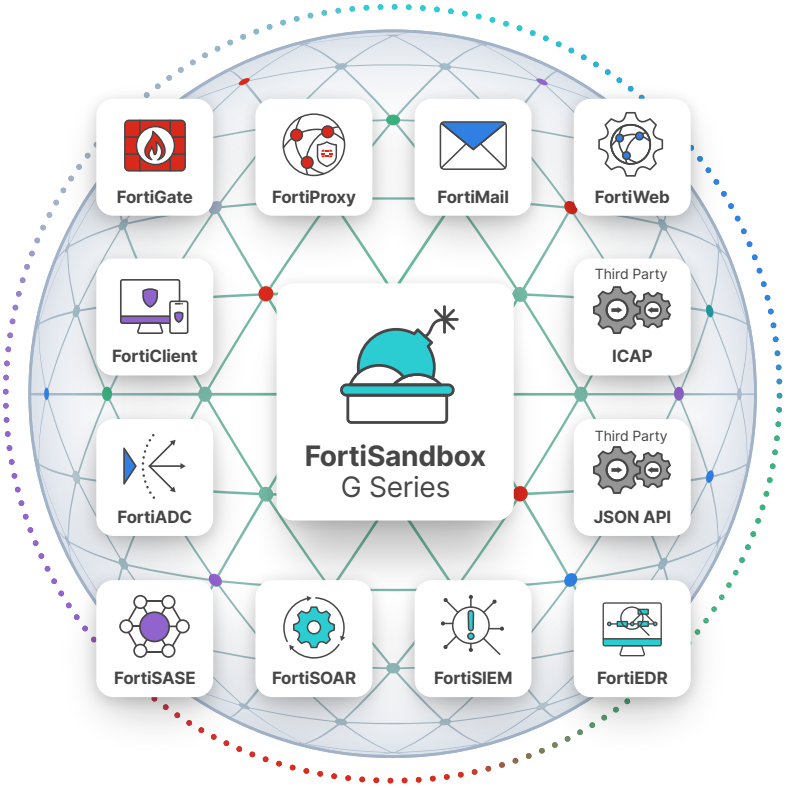
Now that we've explored the value of sandboxing, addressed common misconceptions, and reviewed real-world use cases, it's time to look under the hood. The following section outlines the FortiSandbox core capabilities and technical specifications—highlighting the features that drive its speed, accuracy, and seamless integration across your security infrastructure.

Choosing the Right Sandbox: Feature Comparison

Not all sandboxes are built the same. This section compares key capabilities that matter most—such as AI-driven analysis, deployment flexibility, integration, and automation—to help you choose the right solution for your environment.

Advantage	FortiSandbox	Competitor	Comments
AI/ML Capabilities	✓✓✓	✓✓	FortiSandbox: advanced AI and ML with neural networks available on-premises and cloud, reduce latency. Competitor: AI or ML engine based on cloud-based updates are slower.
Threat Detection Architecture	✓✓✓	✓✓	FortiSandbox: Multi-layer (AI + selective behavioral) Competitor: Primarily execution-based or cloud-dependent
Integration	✓✓✓	✓✓✓	FortiSandbox: Integrates with Fortinet Security Fabric, ICAP, BCC, API. Competitor: Strong integration with their ecosystem.
Deployment Options	✓✓✓	✓✓	FortiSandbox: On-prem, virtual, public-cloud and SaaS cloud. Competitor: Limited selection on-prem, virtual, public-cloud or SaaS cloud.
Forensics Capabilities	✓✓✓	✓✓	FortiSandbox: Full job detailed report. Competitor: Limited to moderate forensic tools.
Automation and Threat Sharing	✓✓✓	✓✓✓	FortiSandbox: Automatic signature distribution. Competitor: Automatic signature distribution.
Cost and Licensing	✓✓✓	✓✓	FortiSandbox: Competitive pricing and simple licensing model. Competitor: Higher tiered pricing and/or per-seat licensing.

Once you understand the features, the next question is: how well does it work across your existing stack?



Enterprise Trust: Validated Security and Compliance

NIAP

FortiSandbox is now listed on the NIAP PCL as product 11636, evidencing independent evaluation against rigorous U.S. government security assurance standards. This listing reinforces FortiSandbox' suitability for government, defense, and critical infrastructure environments that require validated, high-assurance security solutions.

HIPAA-Compliant

FortiSandbox is HIPAA-compliant, aligning with strict requirements for safeguarding protected health information (PHI). Its validated controls support secure handling, processing, and analysis of sensitive healthcare data. This makes FortiSandbox a trusted component for healthcare providers and partners operating within regulated clinical and patient-care workflows.

SOC 2–Certified

FortiSandbox is SOC 2–certified, demonstrating independent validation of its security, availability, and confidentiality controls. This certification confirms that FortiSandbox follows rigorous industry standards for protecting customer data and ensuring reliable service operations. Organizations can rely on its proven governance and operational discipline in demanding environments.

Detailed Summary

Advanced Threat Protection

- Advanced AI to identify zero-day threats faster and better detection
- Inline blocking to detect and protect against Zero-day Malware including ransomware; blocks and holds malicious content at the FortiGate and sends to the sandbox for analysis/verdict
- Real-time identification of Zero-day Phishing sites including spam and malware-hosted sites
- Network threat detection in sniffer mode. Identify botnet activities and network attacks, malicious URL visits
- Threat enrichment through FortiGuard IOC
- Sandbox Community Cloud for shared analysis within the worldwide community of FortiSandbox deployments

System Integration Support

- File and URL submission by Security Fabric devices
    - Integrated mode with FortiGate. HTTP, SMTP, POP3, IMAP, MAPI, FTP, IM, and their equivalent SSL-encrypted versions
    - Integrated mode with FortiMail. SMTP, POP3, IMAP
    - Integrated mode with FortiClient EMS. HTTP, FTP, SMB
    - Integrated mode with FortiWeb. HTTP
- Sniffer mode. HTTP, FTP, POP3, IMAP, SMTP, SMB
- Proxy inspection via ICAP
- MTA/BCC mode via SMTP
- NetShare Scan mode via FTP, sFTP, CIFs, NFS, OneDrive, AWS S3 Buckets, Azure Blob, and Google Cloud storage.
- Dynamic Threat Intelligence DB update of malicious file checksum and URL
- JSON API to automate uploading samples and downloading actionable malware indicators to remediate
- Remote and secured logging with FortiAnalyzer, FortiSIEM, CEF servers, and syslog servers

Deployment

- File submission from integrated device(s)
- Sniffer mode deployment with TCP RST support to reset client's connection with the suspicious server
- Network Share Scan with large file support (e.g., ISO images, network shared folders, SMB/NFS, AWS S3, and Azure Blob)
- Proxy adapter submission with multi-tenancy support
- OT deployment with supported services: BACnet, HTTP, IPMI, Modbus, S7comm, SNMP, TFTP
- High-availability with Primary and Secondary nodes for redundancy
- Port monitoring for cluster fail-over
- Clustering up to 99 worker nodes for higher throughput
- Air-gapped networks support
- Aggregate interface support for increased bandwidth and redundancy
- Isolated administrative traffic from VM image traffic

Detailed Summary continued

Advanced AI Scan (Static AI Scan) Features

- Integrated with the new Advanced AI engine and model
- Integrated with the full FortiGuard Antivirus database of heuristic and checksum signatures
- Intelligent adaptive scan profile that optimizes sandbox resources based on submissions
- Parallel scan to run multiple distinct VM types simultaneously
- Extracts and scan files embedded in documents
- Extracts and scan URLs embedded in documents and QR Code
- Extracts and scan images in documents using OCR
- Integrate with third-party Yara rules
- Cloud query for latest known Malware and clean files
- File checksum allowlist and blocklist options
- Scan URLs from submitted emails and files
- Rating Engine Plus that leverages the latest FortiGuard ML rating
- VM scan ratio for efficient utilization of VMs

Sandboxing VM (Dynamic AI Scan) Support

- AI-powered behavioral analysis constantly learning new malware and ransomware techniques
- Concurrent dynamic analysis VM instances
- OS type supported: Windows 11/10/8.1/7, macOS, Linux, Android, and ICS systems
- Customizable VMs for Windows and Linux OS
- Configurable internet browser supporting Internet Explorer, Microsoft Edge, Google Chrome, and Mozilla Firefox
- Sandbox interactive mode, video-recording of malware interaction and VM screenshots
- Nested VMs on premise and cloud deployment
- Anti-evasion detection techniques
  - API Obfuscation
  - Bare-metal Detection
  - Command and Control
  - Direct System Calls
  - Execution Delay
  - Memory Only Payload
  - Process Hollowing/Injection
  - Runtime Encryption/Packing
  - System Fingerprinting
  - Time Bomb
  - User Files Check
  - User Interaction Check
  - VM/Sandbox Detection
- Callback detection. Malicious URL visit, botnet C&C communication, and attacker traffic from activated malware
- Downloadable captured packets, tracer logs, and screenshots
- File Types Support: Windows Executable, Microsoft Office, Document/Email, Android files, Linux files, MacOS, Web files
- File Compression Support
- User-defined extensions

Detailed Summary continued

Monitoring and Reporting

- AI-based Threat Summary using the collected indicators and results
- Dashboard widgets for connectivity and services, license status, scan performance, system resources
- Scan performance page for tracking historical usage
- Real-time monitoring widgets. Scanning result statistics, scanning activities (over time), top targeted hosts, top malware, top infectious URLs, top callback domains
- Drilldown event viewer. Dynamic table including actions, malware name, rating, type, source, destination, detection time, and download path
- Reports and logging. GUI, download PDF, and raw log file
- Detailed Job Report generation
- Periodic logs of system status, performance, scan statistics, and system resource usage
- MITRE ATT&CK v11 support
- Download tracer logs, PCAP, and indicators in STIX 2.0 format
- Notification emails when a malicious file is detected
- Weekly reports to global email lists and administrators
- TAC-report for comprehensive snapshot of system configuration and status

Administration

- Configuration via GUI and CLI
- Multiple administrator accounts supporting full or view only access
- Radius authentication for administrators
- Single Sign-On via SAML
- Self-Check widget for configurations, connectivity, and services
- Cluster management page for administering the HA and cluster nodes
- Centralized search page allowing administrators to build customized search conditions
- Upload any license from a single convenient page
- VM status monitoring
- Automatic engine and signature updates
- Automatic check for new VM image availability
- System health check alerting system
- NTP via FortiGuard support
- Backup, restore, and revision of system configuration
- Consolidated CLI for troubleshooting
- Option to auto-submit suspicious files to cloud service for manual analysis and signature creation
- Option on NetShare scan mode to prioritize and forward files to a third-party scanning for further scanning

Deployment and Detection Specifications

FEATURE	CLOUD				ON PREMISE	
	FSA SaaS	FSA IL MPS	FSA PaaS	FSA Public Cloud	FSA VMs	FSA Hardware
Deployment and Integration						
Type						
Deployment	Fortinet Hosted	Fortinet Hosted	Fortinet Hosted	Azure, AWS, GCP, OCI	On Premise	On Premise
Hosting	Shared	Shared	Dedicated	Dedicated	Dedicated	Dedicated
Integration						
Security Fabric	Centralized	Centralized	Centralized	Centralized	Centralized	Centralized
Fabric Partner	—	—	✓	✓	✓	✓
API, BCC, ICAP, MTA, NetShare, and Sniffer Mode	—	—	only API	✓	✓	✓
FortiGate Capabilities						
Detection (Visibility and Log Enrichment)	✓	✓	✓	✓	✓	✓
Prevention (Inline Blocking)	—	✓	✓	✓	✓	✓
Detection						
Static Analysis						
Advanced AI[1]	✓	✓	✓	✓[1]	✓[1]	✓[1]
Static AI Engine[3]	✓	✓	✓	✓	✓	✓
Accelerated AI Pre-filter[2]		✓	Add-on	Add-on	Add-on	Add-on
Antivirus Extended DB	✓	✓	✓	✓	✓	✓
Web Filtering	✓	✓	✓	✓	✓	✓
Dynamic Analysis						
Dynamic AI Engine[3]	✓	✓	✓	✓	✓	✓
Analysis Time	up to 60 mins	1-5 minutes	1-3 minutes	1-3 minutes	1-3 minutes	1-3 minutes
Universal VM				✓	✓	✓
Real-Time Anti-Phishing			Add-on	✓[1]	✓[1]	✓[1]
Anti-Evasion Detection	✓	✓	✓	✓	✓	✓
IPS and C&C Detection	✓	✓	✓	✓	✓	✓
Supported OS						
Windows	✓	✓	✓	✓	✓	✓
MacOS, Linux, Android	—	✓	✓	✓	✓	✓
Custom VM	—	—	—	✓	✓	✓
OT Simulation	—	—	—	✓	✓	✓

1. Available as part of "Advanced Sandbox Threat Intelligence" subscription.
2. Add-on integration with FortiNDR appliance for fast pre-filtering.
3. AI-powered content and behavioral analysis through Machine Learning Model updated via Sandbox Threat Intelligence subscription.

Supported File Type Specifications

FEATURE	CLOUD				ON PREMISE	
	FSA SaaS	FSA IL MPS	FSA PaaS	FSA Public Cloud	FSA VMs	FSA Hardware
Supported File Type						
Windows Executables						
Portable executable (exe, dll, scr)	✓	✓	✓	✓	✓	✓
Installer and script files (bat, cmd, jse, msi, ps1, vbe, vbs, wsf)	✓	✓	✓	✓	✓	✓
Productivity Files						
Microsoft Office (Word, Excel, Powerpoint, Publisher, OneNote)	✓	✓	✓	✓	✓	✓
Portable document format files (pdf)	✓	✓	✓	✓	✓	✓
Other related files (csv, ics, rtf)	✓	✓	✓	✓	✓	✓
Email						
Email files (eml, msg)	✓	✓	✓	✓	✓	✓
Links contained in emails (lnk)	✓	✓	✓	✓	✓	✓
Web files						
Common files (html, chm, js, lnk, mht, url)	—	—	✓	✓	✓	✓
Adobe Flash files (swf)	—	—	✓	✓	✓	✓
Images						
Images with QR Code and Ransomware	—	—	✓	✓	✓	✓
Additional OS						
Android application package files (apk)	—	✓	✓	✓	✓	✓
Linux and Shell scripts files (elf, sh)	—	✓	✓	✓	✓	✓
MacOS files (dmg)	—	✓	✓	✓	✓	✓
Archive Common files						
Common files (7z, arj, cab, bzip, gzip, jar, lzw, rar, tar, lzh, zip, xz)	✓	✓	✓	✓	✓	✓
Additional Archive files (ace, iso, kgb, pst, tgz, udf, upx, vhd, z)	—	—	✓	✓	✓	✓

Capacity and Performance Specifications

FEATURE			
Hardware Platform	**FSA-500G**	**FSA-1500G**	**FSA-3000G**
Capacity			
Local VM Capacity	2-14	2-28	8-150
Cloud VM Expansion[1]	1-80	1-120	1-200
Performance and Capacity			
Effective Sandboxing Throughput[2] (Files/Hr)	10 000	32 000	160 000
Static Analysis Throughput[5] (Files/Hr)	20 000	80 000	320 000
Dynamic Analysis Throughput[6] (Files/Hr)	750	1500	12 000
FortiMail Throughput[7] (Emails/Hr)	100 000	320 000	1600 000
MTA Adapter Throughput (Emails/Hr)	25 000	80 000	320 000
Sniffer Mode Throughput (Gbps)	0.5	4	10.0
Number of Users[8]	1600	4800	28 800

FEATURE							
VM Platform	**FSA-PAAS1[3]**	**FSA-PAAS2[3]**	**FSA-PAAS3[3]**	**FSA-VMS1**	**FSA-VMS2**	**FSA-VMS3**	**FSA-VMS4[9]**
Capacity							
Local VM Capacity	—	—	—	0-8	0-16	0-32	0-64
Cloud VM Expansion[1]	1-19	20-49	50-200	1-200	1-200	1-200	1-200
Performance and Capacity							
Effective Sandboxing Throughput[2] (Files/Hr)	7000	21 000	42 000	8000[4]	24 000	48 000	96 000
Static Analysis Throughput[5] (Files/Hr)	12 000	32 000	64 000	20 000[4]	60 000	120 000	240 000
Dynamic Analysis Throughput[6] (Files/Hr)	350	700	1400	200[4]	400	800	—
FortiMail Throughput[7] (Emails/Hr)	—	—	—	80 000	240 000	480 000	960 000
MTA Adapter Throughput (Emails/Hr)	—	—	—	20 000	60 000	120 000	240 000
Sniffer Mode Throughput (Gbps)	—	—	—	1	TBD	TBD	TBD
Number of Users[8]	800	2400	4800	1000	2000	4000	8000

Notes:

The FSA VMS is tested on premise Hyper-V server with corresponding CPUs, memory, and VMs.

The FSA Public Cloud BYOL could achieve similar performance based on chosen resources.

The performance of FSA SaaS, FSA IL MPS and FSA Public Cloud PAYG are not included, as they cannot be accurately measured.

1. The ranges reflect Universal VM support through firmware version 5.0 and later.
2. Tested based on files with 80% documents and 20% executables; measured based on v5.2. Includes both static and dynamic analysis with pre-filtering enabled.
3. FSA-PaaS1 is tested on Flavor-1 VM (with 4 CPUs and 8GB RAM) and 10 VMs. FSA-PaaS2 is tested on Flavor-2 VM (with 8 CPUs and 16GB RAM) and 20 VMs. FSA-PaaS3 is tested on Flavor-3 VM (with 16 CPUs and 32GB RAM) and 40 VMs.
4. Tested on a Hyper-V (with 16 CPUs and 32GB RAM) and 8 VMs.
5. Includes receiving, job handling, AV engine, Yara engine, Cloud Query; measured based on v5.2.
6. Tested with Static Analysis and all files are forwarded to Dynamic Analysis.
7. Based on a ratio of one email with attachment to 10 emails.
8. Based on a ratio of one user per 80 emails on 10 hour period with 10% on Dynamic Scan.
9. Throughput is constrained by the 96 vCPU limit in version 5.0.

Hardware Specifications

FEATURE			
	FSA 500G	FSA 1500G	FSA 3000G
System Information			
Form Factor	1RU Appliance	1RU Appliance	2RU Appliance
Network Interfaces	4x GE RJ45 ports	4x GE RJ45 ports, 2× 10 GE SFP+ slots	8× 10 GE SFP+ slots
Storage	1× 960 GB	2× 960 GB RAID1	4× 2 TB RAID-10
Hot Swappable	—	✓	✓
Trusted Platform Module (TPM)	✓	✓	✓
Dimensions			
Height x Width x Length (inches)	1.73×17.24×14.96	1.73×17.24×24.02	3.5×17.2×25.6
Height x Width x Length (mm)	44×438×380	44×438×610	88×438×650
Weight (lbs/kg)	11.42 lbs (5.18 kg)	24.92 lbs (11.30 kg)	44 lbs (20 kg)
Power			
Number of Power Supplies	1x	2x	2x
Power Supply (AC/DC)	100–240V AC 50/60 Hz	100–240V AC, 50/60 Hz	100–240V AC, 50/60 Hz
Maximum Current (AC/DC)	100V/6A, 240V/3A	100V/7.5A, 240V/3.9A	100V/10A, 240V/5A
Power Consumption (Average/Maximum)	71.8 W / 87.8 W	238.1 W / 291.06 W	471.9 W / 542.4 W
Redundancy	—	✓	✓
Hot Swappable	—	✓	✓
Environment			
Forced Airflow	Front to Back	Front to Back	Front to Back
Heat Dissipation	333.63 BTU/h	1027.22 BTU/h	1850.67 BTU/h
Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-20°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Humidity	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% (non-condensing)
Compliance			
Certifications	FCC Part 15 Class A, RCM, VCCI, CE, BSMI, KC, UL/cUL, CB, GOST		
Additional Services			
24 × 7 Support	✓	✓	✓

FortiSandbox 500G

FortiSandbox 1500G

FortiSandbox 3000G

Integration Matrix

	CLOUD				APPLIANCES
Product	**SaaS**	**Inline Sandbox**	**FortiSandbox Cloud (PaaS)**	**Private/Public Cloud**	**VM / Hardware**
FORTIGATE	FortiOS V7.0+	FortiOS V7.2.1+, FortiOS V7.4.1+ (PaaS)	FortiOS V7.0+	FortiOS V7.0+	
FORTICLIENT	FortiClient for Windows OS V7.0+		FortiClient for Windows OS V7.0+	FortiClient for Windows OS V7.0+	
FORTIMAIL	FortiMail OS V6.2+		FortiMail V7.0+	FortiMail OS V7.0+	
FORTIWEB	FortiWeb OS V7.0+			FortiWeb OS V7.0+	
FORTIADC	FortiADC OS v6.0+			FortiADC OS V7.0+	
FORTIPROXY	FortiProxy OS v7.0+ FortiProxy OS v7.4+			FortiProxy OS V7.0+	

Ordering Information

The following SKU list outlines the primary Sandbox deployment options. For full guidance, please refer to the related ordering guides at https://www.fortinet.com/resources/ordering-guides.

Product	SKU	Description
FortiSandbox SaaS for FortiGate		
Enterprise Protection (includes IL MPS) (FGT-60F)	FC-10-0060F-809-02-DD	Enterprise Protection (IPS, AI-based Inline Malware Prevention, Inline CASB Database, DLP, App Control, Adv Malware Protection, URL/DNS/Video Filtering, Anti-spam, Attack Surface Security, Converter Svc, FortiCare Premium).
Inline Malware Prevention Service (IL MPS) (a la carte SKU) (FGT-60F)	FC-10-0060F-577-02-DD	FortiGuard AI-based Inline Malware Prevention Service. (Also available as part of the Enterprise Bundle).
Cloud Sandbox (FGT-60F)	FC-10-0060F-100-02-DD	Advanced Malware Protection (AMP) Bundle including Antivirus, Mobile Malware and FortiGate Cloud Sandbox Service.
FortiSandbox SaaS for Security Fabric		
Cloud Sandbox for FortiMail (FML-200F)	FC-10-FE2HF-123-02-DD	FortiMail Cloud Sandbox - Cloud Sandbox for FortiMail.
Cloud Sandbox for FortiWeb (FWB-100E)	FC-10-W01HE-123-02-DD	FortiWeb Cloud Sandbox - Cloud Sandbox for FortiWeb.
Cloud Sandbox for FortiProxy (FPX-400E)	FC1-10-XY400-514-02-DD	SWG Protection Bundle which includes Sandbox Cloud.
Cloud Sandbox for FortiADC (FAD-220F)	FC-10-AD2AF-123-02-DD	FortiADC Cloud Sandbox - Cloud Sandbox for FortiADC.
FortiSandbox PaaS		
FortiSandbox Cloud 1 VM	FC1-10-SACLP-433-01-DD	Cloud VM Service for FortiSandbox Cloud. Expands Cloud VM for Windows/macOS/Linux/Android by one. (Maximum of 200 VMs per FortiSandbox.
FortiSandbox Cloud 5 VMs	FC2-10-SACLP-433-01-DD	Cloud VM Service for FortiSandbox Cloud. Expands Cloud VMs for Windows/MacOS/Linux/Android by five. (Maximum of 200 VMs per FortiSandbox.
FortiSandbox Pub Cloud / FortiSandbox VM Appliance		
FortiSandbox-VMS	FSA-VMS	Subscription license for FortiSandbox-VM with Advanced AI bundle, supporting 16 vCPUs and expandable up to 8 Universal VMs.
FortiSandbox On Premise Hardware		
FortiSandbox 500G	FSA-500G	Sandboxing Hardware Appliance for SMB. Includes two Universal VM count. Available VM count expansion up to max 14 Local and 80 Cloud. Includes 1xWin11, 1xWin10, 1xOffice21 Licenses.
FortiSandbox 1500G	FSA-1500G	Sandboxing Hardware Appliance for Mid-Range. Includes two Universal VM count. Available VM count expansion up to max 28 Local and 120 Cloud. Includes 1xWin11, 1xWin10, 1xOffice21 Licenses.
FortiSandbox 3000G	FSA-3000G	Sandboxing Hardware Appliance for Enterprise. Includes eight Universal VM count. Available VM count expansion up to max 150 Local and 200 Cloud. Includes 4xWin10, 4xWin11, 1xOffice21 Licenses.

Fortinet Corporate Social Responsibility Policy

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