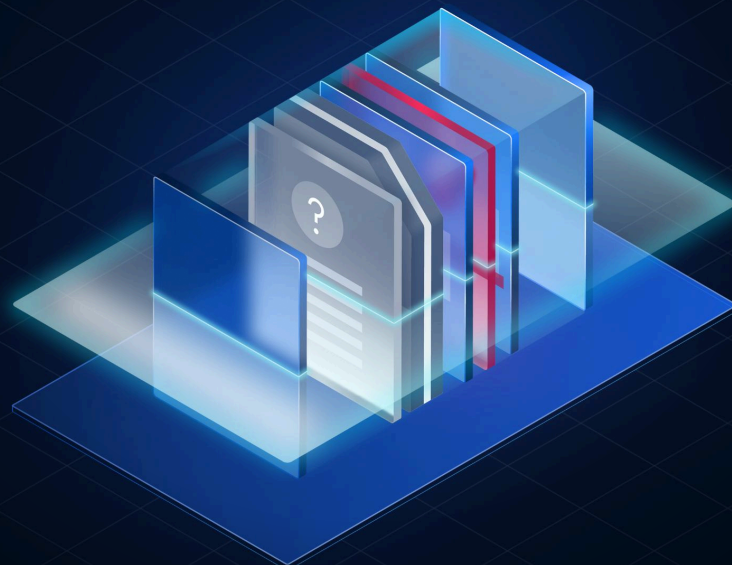


File Structure Validation

The Security Control Gate Every File Passes Through Before Inspection Begins

File Structure Validation is a pre-inspection engine that validates file format, extracts and routes embedded objects to downstream engines in file security workflows. It validates 160+ file types, including complex formats that conventional sanitization does not apply, and that antivirus engines struggle to process fully.

File Structure Validation blocks malformed files early, surfaces risk objects for routing, and ensures downstream engines such as Metascan™ Multiscanning, Predictive Alin AI, Adaptive Sandbox, or Proactive DLP™ receive only the content they need to analyze.



Key Features



File Format Validation

Checks the full file structure against format specifications across 160+ file types, including common and obscure formats.



Embedded Object Extraction

Breaks files into discrete components for comprehensive visibility inside complex and nested file formats.



Object-Level Policy Enforcement

Applies blocking and routing rules at the component level for precise control over what is blocked or routed.



Selective Downstream Processing

Send risk objects to appropriate engines for anti-virus scanning, sandbox detonation, AI-powered analysis, DLP, or reputation.



Polyglot Detection

Detects files that are simultaneously valid under two format specifications, blocking evasion techniques that exploit file type check gaps.



Schema Validation

Breaks files into discrete components for comprehensive visibility inside complex and nested file formats.

Benefits

Prevention-First

Enforces security policies before threats reach processing engines. Files with invalid or non-compliant structures are blocked at the gate, without requiring a verdict.

Comprehensive Coverage

Extends structural enforcement to 160+ file types, including database, GIS, and other complex formats that previously passed through with no structural inspection.

Zero-Day Protection

A file does not need a known signature to be assessed. Structural validation and object extraction surface risk in novel and complex formats before execution.

Integrity-Preserving

The original SHA256 hash is unchanged after inspection, so chain-of-custody holds in environments where conventional sanitization is not an option.

Optimized Processing

Each downstream engine receives only the content relevant to its function, reducing processing volume and false positives in complex formats.

Auditable

Every file produces structured output, creating an auditable record of what was inside each file and what action was taken.

Formats Supported

Supports validation across 160+ file types of the following families:

AI Model

Includes GGUF, ONNX, STS

Archive

Includes EMZ, DPA, EASM

Application

Now supports CRL

Office Document

Includes DOCX, XLSX, PPTX, JTD, HWP

Executables

Now supports LNK

Image

Includes PNG, JPG, TIFF, SVG

Media

Includes MOV, MP4, WMV

Adobe

Now supports PDF, OTF

Text

Includes HTML, XML, CSV, JSON, ZEI

✓ 160+ file types

✓ Support of **AI model**, geospatial and database formats

✓ **Built-in & custom blocking** per file type, object type

✓ Object extraction using CDR principles

✓ **Polyglot** detection

✓ **Schema** validation