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# The big data Challenge

Any number of advanced algorithms or visualization tools and dashboards will do little in the effort of detecting cyber threats without the right data.

Log files have to be collected, parsed, enriched, and loaded into a scalable data lake where it can be accessed, processed, and stored for real-time and future analysis. Security challenges today are a "big data" challenge. A true cloud-scale security solution has to be capable of collecting all the data in an enterprise to enable data-driven analytics.

Log aggregation, the process of collecting logs from multiple computing systems, parsing them and applying the data to a data model that makes it easily searchable and explorable, can be challenging with an exponential increase in number of sources and data volume. The fact that the log sources are often distributed on-premise, in the cloud or across different clouds makes collection of data even more complex and costly.



Elysium Analytics provides a scalable, robust and flexible architecture, delivered as a service, that assures secure and reliable collection, parsing and loading of any type of log data as well as network traffic data into a cloud scale data lake built on top of Snowflake's data warehouse.



### Simple and flexible Set up and flow your

security data to Snowflake and customize, enrich, and parse the data on the stream before it even hits the data warehouse.



Secure & reliable Never lose an event. Our checks and balances ensures error handling without slowing down your pipeline



Scalable We scale to any

number of data sources at high or low volume

### **Data Collection Flow**

#### **File Shippers Connectors** Parsers Enrichment န္တိ nifi JSON logstash kafka logstash Java splunk beats Beats, Minifi, Splunk Connect your sources Parse legacy device data Enrich data in real time with Forwarder compatible for leveraging existing connectors sources in Logstash and Identity, Asset, Geolocation, simple integration and from Logstash and Apache modern data sources in JSON Threat Intelligence, as well as leverage of existing enterprise Nifi with our direct output data from lookup tables built collection frameworks plugin from Logstash to into the storage platform data Snowflake pipeline Collect, Parse, Enrich, Load

With integration of all your security and log sources, Elysium Analytics automatically collects all the data you need from any source. Easily parse, map, and group your data in Elysium Analytics Open Data Model for full context and fast analytics. Context and Threat Intel enrichment add event and non-event contextual information to security event data in order to transform raw data into meaningful insights.



# Collect from any source; on-premises and cloud



Anomaly detection relies on excellent algorithms but perhaps even more importantly having the right data to process. We have developed a broad library of Collectors, Parsers and Plug-ins that allows you to collect and load all security related data as well as data for context and enrichment into our data lake. Our data collection is delivered as a cloud service; all you need to do is to point your data sources to our infrastructure and we will take of it from there.

### **Cloud Apps**



Collect, aggregate and analyze logs from any cloud application source. Simple setup. Get the whole picture from all your cloud applications, infrastructure, and devices.

#### **Security Devices**



Collect all log data from your all your security devices, on-premises and cloud implementations for a consolidated view of all activity across all your security solutions and retain the data for as long as you need to.

#### **Enterprise Network**



Collect all your enterprise network and endpoint device logs for full visibility to all activity across all layers of your network.

Collector	Description
Auditbeat	Collects your Linux audit framework data and monitor the integrity of your files
Filebeat	Tails and ships log files
Functionbeat	Reads and ships events from serverless infrastructure.
Heartbeat	Pings remote services for availability
Journalbeat	Reads and ships event from Journald
Metricbeat	Fetches sets of metrics from the operating system and services
Packetbeat	Monitors the network and applications by sniffing packets
Winlogbeat	Fetches and ships Windows Event logs
NXLog	Fetches and ships Windows Event logs
Minifi	Can transmit the data from any IOT device

Image: Service Principals       Home > Elysium Connect > Feeds > Connectors         Image: Service Principals       AWS CloudTrail Collect AWS CloudTrail IOs from S3 using a privileged Role       AWS Inventory and Configuration of all accounts Roles       AWS Inventory and Configuration of all accounts Roles       Collect AWS CloudTrail Collect AWS CloudTrail Configuration of all accounts Roles       AWS Inventory and Configuration of all accounts Roles       Collect AWS CloudTrail Configuration of all accounts Roles       AWS VPC Flow Logs Collect AVPC Flow Logs from S3 using AssumeRole       Load Inventory and Configuration of all accounts Roles         Comparations       Image: Connect       Image: Connect       Image: Connect       Image: Connect       Image: Connect         Admin       Image: Connect AWS CloudTrail Iops from S3 using a start Role       Image: Connect AWS CloudTrail Iops Connect	🕅 elysium				
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Home > Elysium Connect > Feeds > Connectors	On-premise v
Image: Sector Feeds       Windows Secure       Windows Net Traffic       Symantec Endpoint       Symantec Endpoint         Image: Operators       Collect Windows Logs using a SAS Token       Collect Windows Net Traffic       Collect Windows Secure	
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Parser Name	Description
MSFT Exchange	Microsoft email events
Windows Audit	Windows audit and sysmon events
Bluecoat	Web proxy events
WatchGuard - DNS	Web proxy DNS events
WatchGuard - VPN	Web proxy VPN events
Cisco ASA	Firewall and VPN events
Windows Sysmon	Windows system monitoring events
Symantec Endpoint Protection	Anti-virus events
Barracuda	Web email events
Palo Alto	Firewall, Proxy and VPN events
Web Sphere	Web traffic events
FireEye	Web download traffic inspection events
Source Fire	IDS events
Bro/Zeek	Flow data
Snort IDS	IDS events
Netflow, IPFIX	Flow data
AWS	Cloud security events
Azure	Cloud security events
AS/400 and iSeries	Mainframe
Box	Cloud services
Checkpoint OPSEC/LEA	Firewall and VPN events
Cisco SDEE	Content delivery events
Cloud/SaaS solutions	Cloud events
Cradlepoint	Network edge events
Flat files (single-line and multi-line, compressed or uncompressed)	Custom flat file events

Parser Name	Description
Flex Database Log Adapter for system and custom logs written to database tables (e.g., Oracle, SQL Server, MySQL) (ODBC & JDBC protocols)	Custom db events
Flow data (e.g., IPFIX, NetFlow, sFlow, J-Flow, SmartFlow)	Flow data
McAfee A/V	Anti-virus events
McAfee HIPS	Endpoint monitoring events
MSFT IIS	Web traffic events
Netflow, IPFIX	Flow data
Office 365	Microsoft Office 365 events
Qualys	Vulnerability events
Rapid7	Collectoin of web proxy events
Redhat Enterprise	OS events
Salesforce	CRM vents
SNMP	Traps event
Snort IDS	IDS events
Sourcefire eStreamer	IDS streaming events
Squid	Web proxy events
Symantec DLP	DLP events
Tenable Security Center	Security events
UDP/TCP and secure syslog	Custom network events
Vendor-specific APIs (example sources):	Collectoin of web proxy events
Vulnerability scanners (example sources):	Vulnerability events
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Vulnerability scanners (example sources):	Vulnerability events

Plugin	Description
azure_event_hubs	Receives events from Azure Event Hubs
beats	Receives events from the Elastic Beats framework
cloudwatch	Pulls events from the Amazon Web Services CloudWatch API
couchdb_changes	Streams events from CouchDB's _changes URI
dead_letter_queue	read events from Logstash's dead letter queue
elasticsearch	Reads query results from an Elasticsearch cluster
exec	Captures the output of a shell command as an event
file	Streams events from files
ganglia	Reads Ganglia packets over UDP
gelf	Reads GELF-format messages from Graylog2 as events
generator	Generates random log events for test purposes
github	Reads events from a GitHub webhook
google_cloud_storage	Extract events from files in a Google Cloud Storage bucket
google_pubsub	Consume events from a Google Cloud PubSub service
graphite	Reads metrics from the graphite tool
heartbeat	Generates heartbeat events for testing
http	Receives events over HTTP or HTTPS
http_poller	Decodes the output of an HTTP API into events
imap	Reads mail from an IMAP server
irc	Reads events from an IRC server
java_generator	Generates synthetic log events
java_stdin	Reads events from standard input
jdbc	Creates events from JDBC data
jms	Reads events from a Jms Broker
jmx	Retrieves metrics from remote Java applications over JMX
kafka	Reads events from a Kafka topic
kinesis	Receives events through an AWS Kinesis stream

Plugin	Description
log4j	Reads events over a TCP socket from a Log4j SocketAppender object
lumberjack	Receives events using the Lumberjack protocl
meetup	Captures the output of command line tools as an event
pipe	Streams events from a long-running command pipe
puppet_facter	Receives facts from a Puppet server
rabbitmq	Pulls events from a RabbitMQ exchange
redis	Reads events from a Redis instance
relp	Receives RELP events over a TCP socket
rss	Captures the output of command line tools as an event
s3	Streams events from files in a S3 bucket
salesforce	Creates events based on a Salesforce SOQL query
snmp	Polls network devices using Simple Network Management Protocol (SNMP)
snmptrap	Creates events based on SNMP trap messages
sqlite	Creates events based on rows in an SQLite database
sqs	Pulls events from an Amazon Web Services Simple Queue Service queue
stdin	Reads events from standard input
stomp	Creates events received with the STOMP protocol
syslog	Reads syslog messages as events
tcp	Reads events from a TCP socket
twitter	Reads events from the Twitter Streaming API
udp	Reads events over UDP
unix	Reads events over a UNIX socket
varnishlog	Reads from the varnish cache shared memory log
websocket	Reads events from a websocket
wmi	Creates events based on the results of a WMI query
xmpp	Receives events over the XMPP/Jabber protocol

## About Elysium **Analytics**

Elysium Analytics is a machine learning based log analysis solution for security-minded, mid-sized to large enterprises who are challenged by the volume of security log data today, both from an infrastructure as well as an analytics and detection perspective. We have simplified onboarding of data, provided a scalable data lake analytics platform, and search on a pay-as-you-go basis. Since we are built on top of Snowflake, our SaaS solution is truly a cloud scale security analytics platform that removes the barriers from ingesting, contextualizing, searching, analyzing, and storing log data with a cost-effective and low-risk service. Unlike other log analysis vendors in the market, our SaaS offering is licensed on a usage basis, lowering cost and removing financial risk. You pay a low price for storage, and compute is billed by the minute of usage. Additionally, we have an open platform with no vendor lock-in, customizable analytics models, as well as APIs for end user development of analytics models.



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