

Zeek logs

Don't defend alone. Nothing is faster than a community-based approach to security.

conn.log | IP, TCP, UDP, ICMP connection details

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp of first packet
uid	string	Unique identifier of connection
id	record	Connection's 4-tuple of endpoint addresses
addr	string	IP address of system initiating connection
port	int	Port from which the connection is initiated
addr	string	IP address of system responding to connection request
port	int	Port on which connection response is sent
enum	enum	Transport layer protocol of connection
string	string	Application protocol ID sent over connection
interval	interval	How long connection lasted
count	count	Number of payload bytes originator sent
count	count	Number of payload bytes responder sent
string	string	Connection state (see conn.log - conn_state)
bool	bool	Value=T if connection originated locally
bool	bool	Value=T if connection responded locally
count	count	Number of bytes missed (packet loss)
string	string	Connection state history (see conn.log - history)
count	count	Number of packets originator sent
count	count	Number of originator IP bytes (via IP total_length header field)
count	count	Number of packets responder sent
count	count	Number of responder IP bytes (via IP total_length header field)
table	table	If tunneled, connection UID value of encapsulating parents
string	string	Link-layer address of originator
string	string	Link-layer address of responder
int	int	Outer VLAN for connection
int	int	Inner VLAN for connection

conn_state

A summarized state for each connection

FIELD	TYPE	DESCRIPTION
S0	enum	Connection attempt seen, no reply
S1	enum	Connection established, not terminated (0 byte counts)
SF	enum	Normal establish & termination (>0 byte counts)
REJ	enum	Connection attempt rejected
S2	enum	Established, Orig attempts close, no reply from Resp
S3	enum	Established, Resp attempts close, no reply from Orig
RSTO	enum	Established, Orig aborted (RST)
RSTR	enum	Established, Resp aborted (RST)
RSTO50	enum	Orig sent SYN then RST; no Resp SYN-ACK
RSTRH	enum	Resp sent SYN-ACK then RST; no Orig SYN
SH	enum	Orig sent SYN then FIN; no Resp SYN-ACK ("half-open")
SHR	enum	Resp sent SYN-ACK then FIN; no Orig SYN
OTH	enum	No SYN, not closed. Midstream traffic. Partial connection.

history

Orig UPPERCASE, Resp lowercase, compressed

FIELD	TYPE	DESCRIPTION
S	enum	A SYN without the ACK bit set
H	enum	A SYN-ACK ("handshake")
A	enum	A pure ACK
D	enum	Packet with payload ("data")
F	enum	Packet with FIN bit set
R	enum	Packet with a RST bit set
C	enum	Packet with a bad checksum
I	enum	Inconsistent packet (Both SYN & RST)
Q	enum	Multi-flag packet (SYN & FIN or SYN + RST)
T	enum	Retransmitted packet
W	enum	Packet with zero window advertisement
A	enum	Flipped connection

radius.log | RADIUS authentication attempts

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp for when event happened
uid & id	string	Underlying connection info - See conn.log
username	string	Username, if present
mac	string	MAC address, if present
framed_addr	addr	Address given to network access server, if present
tunnel_client	string	Address (IPv4, IPv6, or FQDN) of initiator end of tunnel, if present
connect_info	string	Connect info, if present
reply_msg	string	Reply message from server challenge
result	string	Successful or failed authentication
ttr	interval	Duration between first request and either Access-Accept message or an error

sip.log | SIP analysis

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp when request happened
uid & id	string	Underlying connection info - See conn.log
trans_depth	count	Pipelined depth into request/response transaction
method	string	Verb used in SIP request (INVITE, etc)
uri	string	URI used in request
date	string	Contents of Date: header from client
request_from	string	Contents of From: header ¹
request_to	string	Contents of To: header
response_from	string	Contents of response From: header ¹
response_to	string	Contents of response To: header
reply_to	string	Contents of Reply-To: header
call_id	string	Contents of Call-ID: header from client
seq	string	Contents of CSeq: header from client
subject	string	Contents of Subject: header from client
request_path	vector	Client message transmission path, extracted from headers
response_path	vector	Server message transmission path, extracted from headers
user_agent	string	Contents of User-Agent: header from client
status_code	count	Status code returned by server
status_msg	string	Status message returned by server
warning	string	Contents of Warning: header
request_body_len	count	Contents of Content-Length: header from client
response_body	count	Contents of Content-Length: header from server
content_type	string	Contents of Content-Type: header from server

¹ The "to=" value usually appended to the sender is stripped off and not logged.

smtp.log | SMTP transactions

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp when message was first seen
uid & id	string	Underlying connection info - See conn.log
trans_depth	count	Transaction depth if there are multiple mgs
hello	string	Contents of Hello header
mailfrom	string	Email addresses found in From header
rcptto	table	Email addresses found in Rcpt header
date	string	Contents of Date header
from	string	Contents of From header
to	table	Contents of To header
cc	table	Contents of CC header
reply_to	string	Contents of Reply-To header
msg_id	string	Contents of Message-ID header
in_reply_to	string	Contents of In-Reply-To header
subject	string	Contents of Subject header
x_originating_ip	addr	Contents of X-Originating-IP header
second_received	string	Contents of second Received header
last_reply	string	Last message server sent to client
path	vector	Message transmission path, from headers
user_agent	string	Value of User-Agent header from client
tls	bool	Indicates connection switched to using TLS
uids	vector	File unique IDs attached to message
is_webmail	bool	If message sent via webmail

snmp.log | SNMP messages

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp of first packet of SNMP session
uid & id	string	Underlying connection info - See conn.log
duration	interval	Amount of time between first packet belonging to SNMP session and latest seen
version	string	Version of SNMP being used
community	string	Community string of first SNMP packet associated with session
get_requests	count	Number of variable bindings in GetRequest/GetNextRequest PDUs seen for session
get_bulk_requests	count	Number of variable bindings in GetBulkRequest PDUs seen for session
get_responses	count	Number of variable bindings in GetResponse/Response PDUs seen for session
set_requests	count	Number of variable bindings in SetRequest PDUs seen for session
display_string	string	System description of SNMP-responder endpoint
up_since	time	Time at which SNMP-responder endpoint claims it's been up since

socks.log | SOCKS proxy requests

FIELD	TYPE	DESCRIPTION
ts	time	Time when proxy connection detected
uid & id	string	Underlying connection info - See conn.log
hostname	string	Hostname given by client
domainname	string	Domainname given by client
server_nb	string	NetBIOS name given by server in a CHALLENGE
computer_name	string	Challenge name given by server in a CHALLENGE
server_tree_name	string	Tree name given by server in a CHALLENGE
success	bool	Indicates whether or not authentication was successful
request_p	port	Client requested port
bound	record	Server bound address
bound_p	port	Server bound port

software.log | Software observed on network

FIELD	TYPE	DESCRIPTION
ts	time	Time at which software was detected
host	addr	IP address detected running the software
host_p	port	Port on which software is running
software_type	enum	Type of software detected (e.g., HTTP-SERVER)
name	string	Name of software (e.g., Apache)
version	record	Software version
unparsed_version	string	Full, unparsed version string found
url	string	Root URL where software was discovered

ssh.log | SSH handshakes

FIELD	TYPE	DESCRIPTION
ts	time	Time when SSH connection began
uid & id	string	Underlying connection info - See conn.log
version	count	SSH major version (1 or 2)
auth_success	bool	Authentication result (T=success, F=failure, unset=unknown)
auth_attempts	count	Number of authentication attempts observed
direction	enum	Direction of connection
client	string	Client's version string
server	string	Server's version string
cipher_alg	string	Encryption algorithm in use
mac_alg	string	Signing (MAC) algorithm in use
compression_alg	string	Compression algorithm in use
key_alg	string	Key exchange algorithm in use
host_key_alg	string	Server host key's algorithm
host_key	string	Server's key fingerprint
remote_location	record	Add geographic data related to remote host of connection
section_names	vector of string	Names of sections, in order

ssl.log | SSL handshakes

FIELD	TYPE	DESCRIPTION
ts	time	Time when SSL connection first detected
uid & id	string	Underlying connection info - See conn.log
version	string	SSL/TLS version server chose
cipher	string	SSL/TLS cipher suite server chose
curve	string	Elliptic curve server chose when using ECDHE/ECDH
server_name	string	Value of Server Name Indicator SSL/TLS extension
resumed	bool	Flag that indicates session was resumed
last_alert	string	Last alert seen during connection
next_protocol	string	Next protocol server chose using application layer next protocol extension, if present
established	bool	Flags if SSL session successfully established
cert_chain_fuids	vector	Ordered vector of all certificate file unique IDs for certificates offered by server
client_cert_chain_fuids	vector	Ordered vector of all certificate file unique IDs for certificates offered by client
issuer	string	Subject of signer of X.509 server cert
client_subject	string	Subject of X.509 cert offered by client
validation_status	string	Certificate validation result for this connection
ocsp_status	string	OCSP validation result for this connection
valid_ct_logs	count	Number of different logs for which valid SCTs encountered in connection
valid_ct_operators	count	Number of different log operators for which valid SCTs encountered in connection
notary	record	Response from the ICSI certificate notary
cert	enum	Notary: Response

syslog.log | Syslog messages

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp when syslog message was seen
uid & id	string	Underlying connection info - See conn.log
proto	enum	Protocol over which message was seen
facility	string	Syslog facility for message
severity	string	Syslog severity for message
message	string	Plain text message

tunnel.log | Details of encapsulating tunnels

FIELD	TYPE	DESCRIPTION
ts	time	Time at which tunnel activity occurred
uid & id	string	Underlying connection info - See conn.log
tunnel_type	enum	Tunnel type
action	enum	Type of activity that occurred

weird.log | Unexpected network/protocol activity

FIELD	TYPE	DESCRIPTION
ts	time	Time when weird occurred
uid & id	string	Underlying connection info - See conn.log
name	string	Name of weird that occurred
addl	string	Additional information accompanying weird, if any
notice	bool	If weird was turned into a notice
peer	string	Peer that originated weird

x509.log | X.509 certificate info

FIELD	TYPE	DESCRIPTION
ts	time	Current timestamp
id	string	File ID of certificate
certificate	record	Basic information about certificate
san	record	X509: Subject alternative name extension of certificate
basic_constraints	record	X509: Basic constraints extension of certificate

Microsoft logs

dce_rpc.log | Details on DCE/RPC messages

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp for when event happened
uid & id	string	Underlying connection info - See conn.log
rtt	interval	Round trip time from request to response
endpoint_name	string	Remote pipe name
name_id	string	Endpoint name looked up from uid
operation	string	Operation seen in call

ntlm.log | NT LAN Manager (NTLM)

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp for when event happened
uid & id	string	Underlying connection info - See conn.log
hostname	string	Username given by client
server_nb	string	NetBIOS name given by server in a CHALLENGE
computer_name	string	Challenge name given by server in a CHALLENGE
server_tree_name	string	Tree name given by server in a CHALLENGE
success	bool	Indicates whether or not authentication was successful

rdp.log | Remote Desktop Protocol (RDP)

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp for when event happened
uid & id	string	Underlying connection info - See conn.log
cookie	string	Cookie value used by client machine
result	string	Status result for connection
security_protocol	string	Security protocol chosen by server
client_channels	vector	Channels requested by the client
keyboard_layout	string	Keyboard layout (language) of client machine
client_build	string	RDP client version used by client machine
client_name	string	Name of client machine
client_dig_product_id	string	Product ID of client machine
desktop_width	count	Desktop width of client machine
desktop_height	count	Desktop height of client machine
requested_color_depth	string	Color depth requested by client in high_color_depth field
cert_type	string	If connection is encrypted with native RDP encryption, type of cert being used
cert_count	count	Number of certs seen
certPermanent	bool	Indicates if provided certificate or certificate chain is permanent or temporary
encryption_level	string	Encryption level of connection
encryption_method	string	Encryption method of connection
ssl	bool	Flag connection if seen over SSL

smb_files.log | Details on SMB files

FIELD	TYPE	DESCRIPTION
ts	time	Time when file was first discovered
uid & id	string	Underlying connection info - See conn.log
file_id	string	Unique ID of file
action	enum	Action this log record represents
path	string	Path pulled from tree that file was transferred to or from
name	string	Filename if one was seen
size	count	Total size of file
prev_name	string	If rename action was seen, this will be file's previous name
times	record	Last time file was modified
SMB:	record	MAC
Times	record	Times

smb_mapping.log | SMB mappings

FIELD	TYPE	DESCRIPTION
ts	time	Time when tree was mapped
uid & id	string	Underlying connection info - See conn.log
path	string	Name of tree path
service	string	Type of resource of tree (disk share, printer share, named pipe, etc)
native_file_system	string	File system of tree
share_type	string	If this is SMB2, share type will be included

intel.log | Intelligence data matches

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp when data discovered
uid & id	string	Underlying connection info - See conn.log
seen	record	Where data was seen
matched	set (enum)	Which indicator types matched
sources	set (string)	Sources which supplied data that resulted in match
fluid	string	If file was associated with this intelligence hit, this is uid for file
file_mime_type	string	Mime type if intelligence hit is related to file
file_desc	string	Files 'described' to give more context
cif	record	CIF
notice	enum	Notice: Type of notice
msg	string	Human readable message for notice
sub	string	Human readable sub-message
src	addr	Source address, if no conn_id
dst	addr	Destination address
p	port	Associated port, if no conn_id
n	count	Associated count or status code
peer_desc	string	Text description for peer that raised notice, including name, host address and port
actions	set (enum)	Actions applied to this notice
suppress_for	interval	Field indicates length of time that unique notices should be suppressed
remote_location	record	If GeoIP support is built in, notices have geographic information attached to them
dropped	bool	Indicate if src IP address was dropped and denied network access



AVAILABLE WITH CORELIGHT

Corelight's Suricata and Zeek logs link alerts and evidence to accelerate incident response

suricata_corelight.log

FIELD	TYPE	DESCRIPTION
ts	time	Timestamp of the Suricata alert
uid & id	string	Underlying connection info - See conn.log
alert.category	string	Type of attack being detected
alert.metadata	vector	All metadata keywords from signature in "name=value" format. Conveys info such as modification time, deployment location, etc.
alert.rev	integer	Revision number of signature
alert.severity	count	Seriousness of attack, with 1 being most severe
alert.signature	string	Human-readable description of the attack type
alert.signature_id	count	Numeric signature identifier
community_id	string	The community ID generated by Suricata, if community ID is configured
flow_id	count	The Suricata-assigned flow ID in which the alert occurred
metadata	vector of strings	Application layer metadata, if any, associated with the alert (for example, flowids)
pcap_cnt	count	The PCAP record count, present when the packet that generated the alert originated from a PCAP file
retries	count	The number of retries performed to write this log entry. Used in diagnostic sessions.
service	string	The application protocol
suri_id	string	The unique ID for the log record
tx_id	count	The Suricata-assigned transaction ID in which the alert occurred

Encrypted Traffic collection

AVAILABLE WITH CORELIGHT

Packages

PACKAGE	DESCRIPTION
Cert Hygiene	Tracks risk indicators in TLS traffic, such as newly-minted certificates, expiring certificates, and weak encryption keys
Encrypted DNS	Flags known servers that use encrypted DNS traffic
Encryption Detection	Tracks and logs information regarding the visibility of transport flows
SSH Inference	Makes inferences about the purpose of SSH connections, such as interactivity or file transfer
SSH Stepping Stones	Detects a series of intermediary hosts connected via SSH

Notices

Corelight's Encrypted Traffic collection generates notice logs that highlight both misconfigurations and potential attacker behavior, without needing a decrypted packet feed

NOTICE	DESCRIPTION
SSL-Certificate_Expired	Generated for certificates with an expiration date in the past
SSL-Certificate_Expires_Soon	Generated for certificates set to expire within X days (configurable in the UI)
SSL-Certificate_Not_Valid_Yet	Generated for certificates whose validity date is in the future
SSL-Certificate_Is_New	Generated for newly minted certificates Y days or younger (configurable in the UI)
SSL-Invalid_Server_Cert	Generated when any part of the certificate validation chain fails
SSL-Weak_Key	Generated for certificates whose keys are under 2048 bits
SSL-Old_Version	Generated if SSL version 2 or 3 is detected
SSL-Weak_Cipher	Generated if a deprecated cipher suite is used
Viz:UnencryptedService	A service was detected in plaintext on a port normally reserved for encrypted traffic
Viz:CustomCrypto</	