



DATASHEET

Battle-Tested Network Forensics

Built for Combat. Engineered for Scale.
On-Premises by Design

The screenshot displays the Vehere interface with a table of alerts and a detailed view of a specific alert.

| Time | Risk | Alert ID | Alert | Source |
|----------------------|----------|---------------|---------------------|---------------|
| 5 Feb 2021, 12:47 PM | Critical | 2024126-11017 | ML DNN Alert | 192.168.2.181 |
| 5 Feb 2021, 12:47 PM | Critical | 2024126-11017 | ML DNN Alert | 192.168.2.181 |
| 5 Feb 2021, 12:48 PM | High | 2024126-11018 | ML DNN Warning | 192.168.2.182 |
| 5 Feb 2021, 12:49 PM | Medium | 2024126-11019 | ML DNN Notification | 192.168.2.183 |
| 5 Feb 2021, 12:50 PM | Low | 2024126-11020 | ML DNN Alert | 192.168.2.184 |
| 5 Feb 2021, 12:51 PM | Critical | 2024126-11021 | ML DNN Error | 192.168.2.185 |
| 5 Feb 2021, 12:52 PM | High | 2024126-11022 | ML DNN Alert | 192.168.2.186 |
| 5 Feb 2021, 12:53 PM | Medium | 2024126-11023 | ML DNN Notification | 192.168.2.187 |
| 5 Feb 2021, 12:54 PM | Low | 2024126-11024 | ML DNN Warning | 192.168.2.188 |
| 5 Feb 2021, 12:55 PM | Critical | 2024126-11025 | ML DNN Error | 192.168.2.189 |
| 5 Feb 2021, 12:56 PM | High | 2024126-11026 | ML DNN Alert | 192.168.2.190 |
| 5 Feb 2021, 12:57 PM | Medium | 2024126-11027 | ML DNN Notification | 192.168.2.191 |
| 5 Feb 2021, 12:58 PM | Low | 2024126-11028 | ML DNN Warning | 192.168.2.192 |
| 5 Feb 2021, 12:59 PM | Critical | 2024126-11029 | ML DNN Error | 192.168.2.193 |
| 5 Feb 2021, 13:00 PM | High | 2024126-11030 | ML DNN Alert | 192.168.2.194 |
| 5 Feb 2021, 13:01 PM | Medium | 2024126-11031 | ML DNN Notification | 192.168.2.195 |
| 5 Feb 2021, 13:02 PM | Low | 2024126-11032 | ML DNN Warning | 192.168.2.196 |
| 5 Feb 2021, 13:03 PM | Critical | 2024126-11033 | ML DNN Error | 192.168.2.197 |
| 5 Feb 2021, 13:04 PM | High | 2024126-11034 | ML DNN Alert | 192.168.2.198 |
| 5 Feb 2021, 13:04 PM | High | 2024126-11034 | ML DNN Alert | 192.168.2.198 |

Alert Details

70 Critical Trib3091 ICMP Oversized Packet 16th Nov, 2023 14:32:32

Category: Initial Access
Alert ID: Trib3091ICMPOverSizedPacket
Type: Malware Attack

Description: This Rule identifies Malicious Known Control Channel CQ To Get Shell Host Network.

Client network

- Source IP: 192.168.2.181
- Source Port: 41234
- Application: ICMP
- Client Entropy: 0.0
- Location: 192.168.2.181

Server network

- Destination IP: 192.168.2.182
- Destination Port: 41234
- Application: ICMP
- Client Entropy: 0.0
- Destination Country: US

View Related

A timeline visualization showing related events from 2023. Key events include:

- T-9m: Exfiltration (21)
- T-5m: Exfiltration (21)
- T-0: Exfiltration (21)
- T+5m: Exfiltration (21)
- T+9m: Exfiltration (21)
- T+10m: Exfiltration (21)
- T+12m: Exfiltration (21)

Capture Every Packet. Reconstruct Every Attack. Zero Blind Spots at Petabyte Scale.

Modern SOC's operate in an environment where alerts are constant; encryption is pervasive, and attackers move laterally within minutes. Logs and alerts alone no longer provide enough context to answer the most critical incident-response questions: *What exactly happened? How far has it spread? Was data exfiltrated?*

Vehere Network Forensics delivers continuous packet-level visibility, session reconstruction, and deep historical lookback, transforming fragmented alerts into a coherent attack narrative. Built for terabyte-speed environments and petabyte-scale data volumes, the platform is battle-tested and combat-ready for mission-critical SOC operations. It enables security teams to capture, index, and analyze packet and flow telemetry across encrypted and unencrypted traffic, providing the high-fidelity evidence required to eliminate blind spots and reduce mean-time-to-detect (MTTR). Designed for combat against modern cyber threats, Vehere unifies detection and deep investigation within a single, scalable platform, enabling rapid containment and forensic-grade reporting.

Full fidelity
packet capture
(PCAP) for deep
investigation.

Full session
reconstruction to
rebuild attacker
timelines.

Metadata
extraction from
real network
traffic.

Encrypted traffic
intelligence
without decrypting
payloads.

Evidence preservation suitable for legal,
audit, and IR workflows.

Network Forensics is foundational for modern SOC's because it enables post-incident clarity, supports threat hunting, and provides the ground truth needed to validate or refute alerts from SIEM, EDR, and NDR tools.

Vehere Network Forensics Highlights

- ✔ Line-Rate Full PCAP for continuous, lossless packet acquisition across high-throughput networks
- ✔ Patent Pending Indexed-RAW PCAP Storage enabling ultra-fast packet indexing, search, and retrieval
- ✔ L2—L7 Deep Packet Inspection (DPI) with protocol decoding across DNS, TLS, SMB, HTTP/2, SSH, and VoIP
- ✔ Integrated IDS Engine for real-time threat detection and signature-based inspection of network traffic
- ✔ Encrypted Traffic Intelligence (ETI) using TLS fingerprints, JA3/JA3S, certificate telemetry, and behavioral analysis
- ✔ Full Session Reconstruction & Traffic Replay with East-West / North-South flow correlation
- ✔ On-Demand Dynamic File Analysis via extraction of objects and files directly from captured traffic
- ✔ IOC-Driven Threat Hunting across IPs, domains, hashes, JA3/JA3S fingerprints, and network indicators
- ✔ 180-Day Retrospective Threat Hunting across historical PCAP and flow telemetry

Vehere Network Forensics: Technical Specifications

Effective Network Forensics extends beyond packet capture; it requires a platform engineered for high-fidelity network visibility, rapid investigative workflows, and resilient performance across distributed environments. The specifications below outline the core capabilities powering Vehere Network Forensics, including sustained capture throughput, deep protocol decoding, real-time indexing, encrypted traffic intelligence, and efficient long-term retention.

| Function | Attributes | Description | Capability |
|-----------------------|------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------|
| Packet Capture | Capture Throughput | Supported sustained line - rate capture (1G/5G/10G/40G/100G) | All of them |
| | Max Capture Speed | Peak packet capture rate (e.g., up to 100 Gbps) | 100G |
| | Capture Interfaces | Copper/Fiber | Copper/Fiber |
| | Capture Modes | SPAN, ERSPAN, TAP, Cloud VPC | All of them |
| | Timestamp Accuracy | Hardware timestamping | Yes |
| | Burst Handling | Protection against packet drops during spikes/failures | Yes |
| Storage and Retention | Smart Storage | Selective or Filtered Storage | Yes |
| | RAW Packet Storage | Patented Indexed Raw Technique | Yes |
| | Onboard Storage Capacity | JBOD Storage | JBOD |
| | Expandable Storage | External storage options (SAN) | Yes |
| | Retention Window | Days → weeks → months configurable | Configurable to months |
| | Compression Ratio | Efficiency of compressed storage | 70% on Metadata storage |
| | Selective Capture Filters | Ability to exclude media, large transfers, encrypted payloads | All of them |
| | Legal Hold Support | Forensics-grade preservation of packets | Yes |
| | Download Packets | Whole or specific packet capture data based on a condition or rule | Yes |
| | External PCAPS | Import all | Yes |
| Formats Supported | Various formats including NetFlow v9/ IPFIX/ Full packet capture | Yes | |

| | | | |
|--------------------------------------|------------------------------------|--------------------------------------------|----------------|
| Protocol and Decoder Support | Decoder/dissection Coverage | HTTP(S), DNS, FTP, SMB, VoIP, Email, etc. | All of them |
| | Custom Query Support | Ability to define custom queries | Yes |
| Metadata Extraction and Indexing | Metadata Types | L2-L7 metadata extracted | All of them |
| | TLS/SSL Metadata | JA3/JA3S, SNI, certificate fields | All of them |
| | Real - Time Indexing | Instant flow/session indexing | Session |
| | Search Latency | Typical sub-second search performance | None |
| | Export Formats | JSON | JSON |
| Investigation and Search | Search Types | Session, flow | All of them |
| | IOC Compatibility | IP, domain, hash, JA3, cert fingerprint | All of them |
| | Filtering Capabilities | Time, protocol, direction, attributes | All of them |
| | Drill-Down Navigation | Alerts → flows → packets | All of them |
| | Threat intelligence and Signatures | Inbuilt | Yes |
| Encrypted Traffic Intelligence (ETI) | ETI Features | JA3/JA3S, SNI, TLS versions, cipher suites | All of them |
| | Certificate Analysis | Expired, untrusted CA, self-signed | All of them |
| | TLS Behavior Monitoring | Detection of anomalous encrypted flows | Yes |
| Deployment and Scalability | Deployment Types | Physical, VM, Cloud | All of them |
| | Multi-Site Support | Distributed probes | On-site Probes |
| | Centralized Management | Unified control plane | Yes |
| | Cluster Scalability | Scale-out indexing and storage | Yes |
| | Remote Site Capture | Lightweight capture nodes | Yes |
| | Deployment Type | Inline / Out of band | Out of band |
| Security and Compliance | RBAC | Role-based access permissions | Yes |
| | PII Masking | Built-in redaction | Yes |
| | Audit Logging | Full access and action logs | Yes |

| | | | |
|-------------------------|-----------------------|----------------------------------------------|-----------------------|
| Integrations | SIEM Integration | Syslog, Splunk, QRadar, Elastic, Seceon | Yes |
| | SOAR Integration | Rest Api/ Syslog/ PaloAlto, Cortex | Yes |
| | Threat Intelligence | STIX/TAXII | Both |
| | Ticketing Integration | ITSM / REST APIs | Yes |
| | API Support | REST APIs for search, export and integration | Yes |
| Licensing and Packaging | Licensing Model | Throughput | Throughput-based |
| | Included Components | Probes, controllers management and CMS | All of them |
| | Support Packages | Customised enterprise support | As per the agreed SLA |

Full, Continuous Packet Capture Vs. Selective Packet Capture

| Capability | Full Continuous PCAP | Event-Based PCAP |
|--------------------------------|--------------------------------------------------------|-------------------------------------------------|
| Complete Network Visibility | ✔ Captures all packets continuously | ✘ Only captures packets after an alert triggers |
| Pre-Attack Forensics | ✔ Full visibility before, during, and after attacks | ✘ No visibility before alert occurs |
| Unknown Threat Investigation | ✔ Enables investigation of unknown or zero-day threats | ✘ Limited to known signatures/alerts |
| Attack Timeline Reconstruction | ✔ Full attack chain reconstruction | ✘ Partial timeline due to missing packets |
| Retroactive Threat Hunting | ✔ Retroactive analysis of historical network traffic | ✘ Cannot go back to investigate past traffic |
| Alert Validation | ✔ Packet-level evidence for validation | ✘ Difficult to validate false positives |
| Insider Threat Detection | ✔ Detects slow, stealthy, insider attacks | ✘ May miss low-noise or stealthy activity |
| Compliance & Legal Evidence | ✔ Forensically sound packet records | ✘ Incomplete packet evidence |
| Protocol-Level Deep Analysis | ✔ Full protocol decoding and payload inspection | ✘ Limited visibility |
| SOC Investigation Efficiency | ✔ Single source of truth with packet evidence | ✘ Requires multiple tools and assumptions |

Why choose Vehere Network Forensics? ■

Proven Line-Rate Continuous PCAP at Terabyte Speeds and Petabyte Scale

Patent pending Indexed-RAW Packet Storage enabling ultra-fast packet indexing, search, and retrieval

L2-L7 Deep Packet and Protocol Intelligence with advanced decoding across DNS, TLS, SMB, HTTP/2, SSH, and VoIP

Encrypted Traffic Intelligence (ETI) using TLS fingerprints, certificate telemetry, and behavioral analytics without decryption

Rapid Incident investigation via historical lookback, session reconstruction, IOC hunting and MITRE ATT&CK mapping

SOC-Ready, Battle-Tested Architecture with scalable storage, real-time indexing, and seamless detection-to-forensics pivot

About Vehere

Vehere is a new-age software company specializing in AI Cyber Network Intelligence. For more than a decade, Vehere has been supporting criminal investigation analysts in Defense and Intelligence communities. Vehere is now trusted by cyber-analysts in Fortune 500 companies, including Telecom, Financial Institutions, and Smart cities to protect critical infrastructure against advanced cyber threats and nation-state attacks.

Vehere preserves fundamental principles of privacy and civil liberties. We proactively defend your cyberspace by cross leveraging our expertise between national security and enterprise security.

Address:

1390 Market Street
Suite 200, San Francisco, CA 94102

Unit No. 5, 1st Floor, Andaz, Asset Area 1
Aerocity, New Delhi-110037

E: sales@vehere.com

W: www.vehere.com