



WIRETRACE

SOLUTION BRIEF - HEALTHCARE / IOMT

Medical Device Intelligence from the Wire

WireTrace passively discovers and classifies every medical device on your clinical network by parsing tens of proprietary healthcare protocols. Identify ventilators, monitors, pumps, and analyzers by manufacturer, model, and function without agents, active scanning, or disruption to patient care.

The Challenge

- **Medical Devices Are Untracked** - Thousands of connected medical devices operate across clinical networks with no centralized inventory. Biomed teams rely on manual spreadsheets that go stale within weeks.
- **Biomed Teams Are Blind** - Clinical engineering has no visibility into how medical devices behave on the network. Without this context, troubleshooting and risk assessment are guesswork.
- **HIPAA Evidence Gaps** - Most hospitals cannot prove which medical devices handle patient data or whether those devices are properly segmented.
- **Active Scanning Is Not an Option** - Active scanners have caused ventilator faults, infusion pump restarts, and monitor disconnections. Patient safety prohibits active discovery in clinical environments.

How WireTrace Solves It

Proprietary Protocol Parsing	WireTrace parses tens of vendor-specific medical protocols at the wire level. Philips Respironics, Draeger, GE CARESCAPE, Hamilton, Masimo, Abbott i-STAT, DICOM, and HL7 are all decoded natively.
Automatic Device Classification	Every medical device identified by manufacturer, model family, device function, and communication pattern. Multi-signal weighted voting combines protocol fingerprints, MAC OUI, DHCP hostnames, and observed behavior.
Clinical Network Monitoring	See exactly which devices communicate with EMR systems, PACS servers, clinical gateways, and external endpoints. Detect unexpected cross-VLAN traffic and communication pattern changes.
Network Segmentation Validation	Verify that medical devices are properly isolated from general IT, guest, and administrative networks. Continuously prove segmentation compliance from observed traffic.

Supported Medical Protocols

DICOM · HL7 · HL7/Epic · Philips Respironics · Philips Avalon FM · Philips Data Export · Draeger Infinity Delta · GE CARESCAPE GEMNet · GE Datex-Ohmeda · Hamilton Medical · Maquet Servo · Masimo SET · Abbott i-STAT · bioMerieux VITEK · Capsule DCMP · Welch Allyn WACP · Sirona SIDEXIS · HillRom NaviCare · and more+

Representative examples. WireTrace supports additional proprietary clinical and biomedical protocols, with continuous expansion.

Use Cases

Biomed Asset Inventory	Automatically discover and classify every connected medical device. Ventilators, patient monitors, infusion pumps, imaging systems, lab analyzers appear in a live, always-current inventory.
Network Segmentation Validation	Prove that medical device VLANs are properly isolated. Detect when a device communicates outside its designated segment.
HIPAA Security Evidence	Generate continuous compliance evidence from live traffic. Document which devices handle ePHI and whether access controls are enforced. Replace point-in-time audits with always-on proof.
Clinical Network Monitoring	Monitor communication patterns between medical devices, clinical gateways, and backend systems. Detect anomalies and potential lateral movement.

Compliance & Regulatory

WireTrace maps observed clinical network behavior to HIPAA Security Rule requirements continuously. Device inventories, ePHI flow documentation, access control validation, and segmentation evidence are generated automatically from wire traffic.

Supported frameworks: HIPAA Security Rule · ISO 27001 for Healthcare · Joint Commission · Custom frameworks

Deployment in Clinical Environments

A single WireTrace sensor on a SPAN port or TAP captures all clinical network traffic in a zone. The sensor is 100% passive - it never transmits on the monitored network. Multiple sensors cover multiple VLANs. Air-gap deployable for isolated clinical networks.

First Medical Devices Classified in Under 30 Seconds

Deploy the sensor, connect to a SPAN port on your clinical VLAN, and watch ventilators, monitors, and pumps appear - identified by manufacturer and function, automatically.

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