

CASE STUDY

ZOOM STRENGTHENS LAWFUL INTERCEPTION COMPLIANCE IN INDIA WITH PERTSOL INTERCEPTOR



INTRODUCTION

Zoom, a global cloud communications provider, delivers enterprise-grade voice and unified communications services to organizations worldwide. In India, the company supports regulated VoIP operations through a distributed service delivery model spanning two operational sites (Site 1 and Site 2), with aligned operational governance ensuring consistent service quality, control, and reliability as the footprint scales. As part of strengthening its compliance readiness for regulated voice services in India, Zoom partnered with PertSol to deploy iNterceptor, a Lawful Interception System that enables a standardized lawful interception capability to operate seamlessly across sites while maintaining service continuity.

CHALLENGES

To establish & scale lawful interception for its regulated VoIP operations in India, the provider needed to address:

- ✓ Implementing LI in alignment with **DoT / TEC-GR** mandates and **ETSI HI1/HI2/HI3** handover standards.
- ✓ Extending interception capability across two operational sites while ensuring consistent warrant handling and operational control across locations.
- ✓ Overcoming **SBC constraints** where native ETSI LI interfaces were not available, requiring a **passive, probe-based** approach.

- ✓ Reliably processing **mirrored, high-throughput VoIP traffic** in real time without packet loss & without impacting live services.
- ✓ Ensuring **24×7 availability** through redundancy, along with ongoing **OS upgrades, vulnerability management, and patching** to maintain security and operational stability.

WHY THEY CHOSE PERTSOL

Zoom selected PertSol to implement a lawful interception capability that could be deployed across its India VoIP footprint while ensuring coordinated operational control and service continuity. PertSol's iNterceptor platform aligned with the provider's compliance obligations under DoT / TEC-GR and supported ETSI HI1/HI2/HI3-aligned handover expectations for delivery of Intercept Related Information (IRI) and Call Content (CC) to authorized Law Enforcement Agencies (LEAs).

Operationally, PertSol enabled a passive, probe-based interception approach that avoided intrusive changes to production network elements, reducing risk to live services. Combined with PertSol's implementation experience and responsive support, the provider gained confidence in reliable day-to-day compliance operations, high availability, and a rollout model that can be replicated as additional sites come online.

SOLUTION

Solution Implemented: PertSol iNterceptor – Lawful Interception System with iNteliProbe

PertSol deployed a **distributed, probe-based LI architecture** across **Site 1 & Site 2** to meet regulatory requirements and overcome the lack of native ETSI LI interfaces on existing SBCs – enabling standards-aligned interception and delivery without changes to the live VoIP infrastructure.

KEY COMPONENTS AND CAPABILITIES IMPLEMENTED:

- ✓ iNteliProbe at interception points to capture mirrored SBC traffic via optical taps/traffic mirroring.
- ✓ Centralized iNterceptor Management System for warrant lifecycle, target provisioning, audit logging, and role-based access control.
- ✓ Integrated with telecom operators using GMLC, HLR, SDR, SIGTRAN, and MAP-based interfaces for accurate location intelligence.
- ✓ iNterceptor Mediator (Data Management System) to aggregate/correlate intercepted data (IRI + CC) and manage secure delivery workflows to LEAs
- ✓ ETSI-aligned output generation: IRI from SIP signaling and CC reconstruction from RTP/SRTP streams.
- ✓ Support for SIP, SIP-TLS, RTP, SRTP, multiplexed streams, and standard audio codecs (as applicable to the deployment).
- ✓ Secure local FTP-based delivery of HI2 (IRI) and HI3 (CC) outputs to authorized agencies.
- ✓ High-availability design with standby components for management, mediation, and delivery (as deployed).
- ✓ OS upgrades & migration across LI servers and probes with backup, validation, and vulnerability assessment.

This implementation enabled interception strictly within authorized scope, while preserving production stability and service continuity.

RESULTS

- ✓ The deployment enabled the provider to establish a compliant and audit-ready lawful interception capability for its India VoIP operations. The implemented framework satisfied regulatory requirements while enabling lawful voice services to operate within the mandated telecom environment.
- ✓ The distributed deployment across Site 1 and Site 2 ensured compliant warrant administration and consistent interception control.
- ✓ Authorized agencies received accurate interception outputs in accordance with defined regulatory delivery processes.
- ✓ The solution provided a stable & scalable compliance foundation, positioning the provider to support future operational growth and evolving regulatory requirements without structural redesign.

KEY HIGHLIGHTS

Problem	Solution	Impact
SBC infrastructure lacked native ETSI interception support	Deployment of a probe-based interception architecture independent of vendor interfaces	Enabled full regulatory compliance without modifying the production network
Distributed operational environment	Independent LI systems deployed at each site with aligned configuration	Consistent interception capability with geo-redundant resilience
Regulatory scope limited to authorized VoIP audio services	Controlled traffic identification and standards-aligned interception handling	Accurate, compliant interception within defined authorization boundaries
Requirement for uninterrupted lawful operations	Resilient and scalable system architecture	Continuous compliance readiness with future expansion capability

“As communication services evolve in the cloud, lawful interception ensures compliance evolves with them. A scalable interception framework enables providers to support authorized investigations without disrupting the user experience.”