

# iINTERCEPTOR

An Innovation From PertSol

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Unified Lawful Interception And Management Solution  
For Complete Telecom Network Ecosystem





PertSol is a leading Telecom and IT solution provider for Telecom/  
Internet Service Providers, Government and Law Enforcement Agencies  
providing explicit offering of capabilities starting with specialized solutions,  
customized software applications, professional and project management services  
with dedicated cross functional agile teams.

Our solutions have been shaped by our deep domain knowledge,  
built by harnessing our strength in next generation technologies across  
Telecom Regulatory Compliance Management, Telecom Core Network,  
Emergency Response System, Big Data Analytics & Internet of Things (IoT).  
Backed by our superior delivery experience with a key focus on quality.

**9+** YEARS OF  
OPERATIONS

**60+** R&D  
EXPERTS

**25+** FUTURE READY  
SOLUTIONS

**60+** PROJECTS  
DELIVERED

**65+** HAPPY  
CLIENTS

**23+** LOCATIONS  
WORLDWIDE

# NEED OF LI

## For Communication Service Provider

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With onset of communication technologies and its ever-increasing reach, its use by criminals to plan and execute the crimes has also augmented. To tackle these crimes Law Enforcement Agencies (LEAs) need to have access to their communications which can enable them to nip the bud at an early stage. To enable access to such communications, Governments across the world make it mandatory for the Telecommunication Service Providers to intercept these communications and share them with the LEAs on either real time basis or as a recording.



Lawful Interception is a legal requirement which telecommunication service providers, throughout the world, need to acquire for national security. It is mandatory for the Telecom Service Providers to have an interception system in their network which can help them comply with these Government Regulations. The service providers have to make sure that the interception system covers all the technologies, both present and future. The lawful interception framework is directed by the international standards along with the local laws and regulations laid down by local governing bodies.

According to European Telecommunications Standards Institute (ETSI), as a legally sanctioned official access to private communications, Lawful Interception (LI) is a security process in which a service provider or network operator collects and provides law enforcement officials with intercepted communications of private individuals or organizations.

Lawful Interception (LI) implementation is required by the European Union International User Requirements 19951 which allows for LI to prevent crime, including fraud and terrorism. The ETSI specifications are now in widespread use in many countries that require the Lawful Interception of telecommunications.

In USA, the comparable requirements are enabled by the Communications Assistance for Law Enforcement Act (CALEA), with the specific capabilities promulgated jointly by the Federal Communications Commission and the Department of Justice.

# iNTERCEPTOR

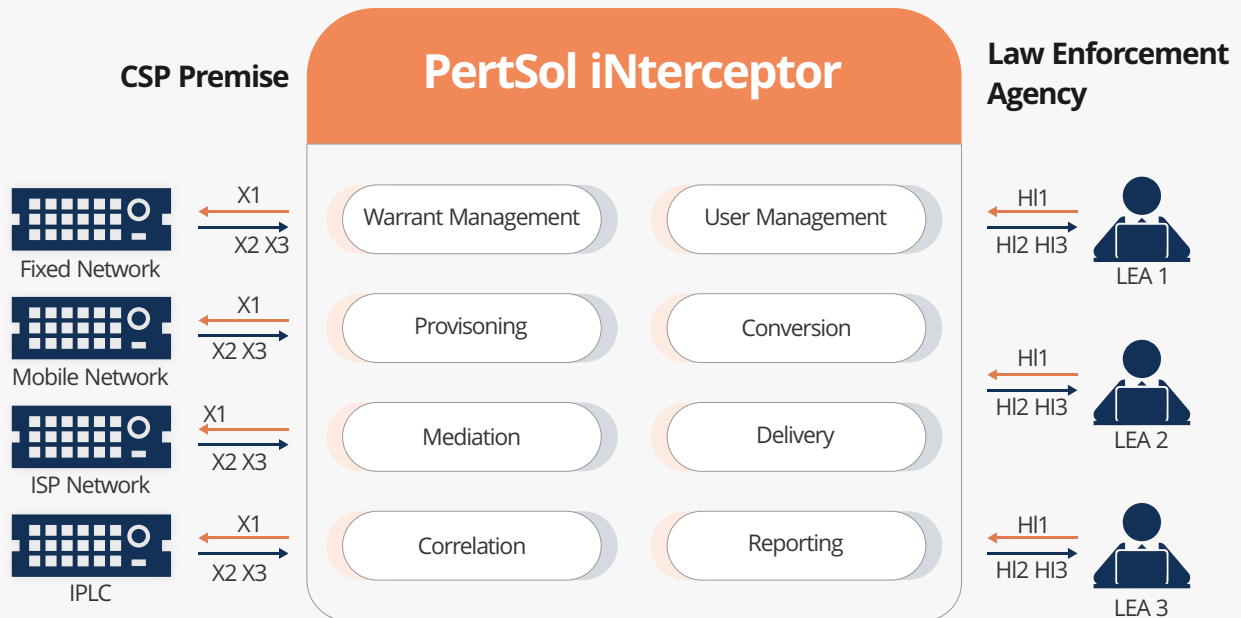
## One Stop LI Solution

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PertSol iNterceptor is a unified Lawful Interception System for network operators and service providers which is fully compliant to the international standards and has a proven track record. It is a complete solution which is capable of handling both circuit switch and packet switch traffic from both legacy as well as latest telecom technologies including PSTN, 2G, 3G, 4G, 5G, LTE, NGN, IMS etc.

The core purpose of iNterceptor is to intercept the traffic and convert intercepted traffic into a format suitable for delivery to the National Authorities or Law Enforcement Agencies, over a secure network. It can also retain the intercepted traffic for future use by the LEAs.

iNterceptor along with PertSol iNteliProbe forms one of the most comprehensive Passive interception solution available in the market. PertSol iNteliProbe supports capturing 100% of traffic upto 100Gbps per node, decoding the traffic from Layer2 to Layer7 with Advance DPI capabilities. It support both transmittal of intercepted data to the LEAs and its storage for future reference.



The probes actively support, capture and reconstruct all non-encrypted IP, Voice traffic and capture VoIP calls, TDM calls and IP Traffic reconstruction.

iNterceptor solution is designed to change and adapts as per latest network upgradation & technologies. It protects investments through its modular setup, accommodating network expansion as well as network changes. It can also integrate with existing Lawful Interception solution incorporating it in a centrally managed unified solution.

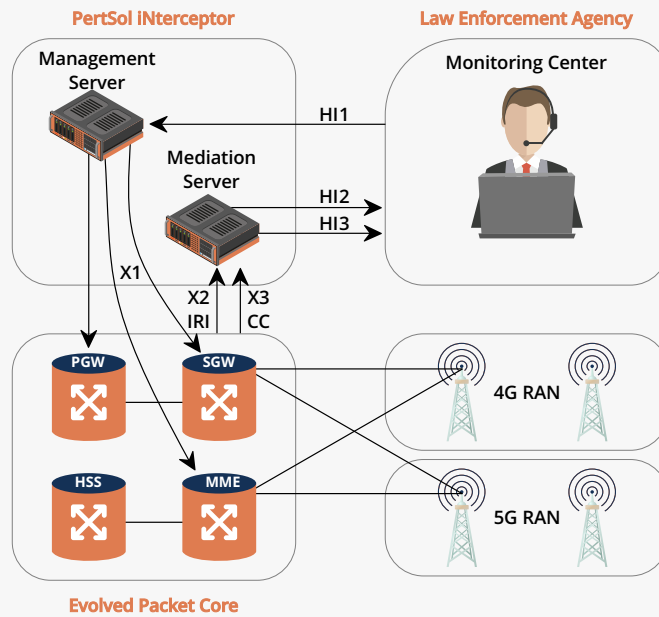
## 5G

### Future Ready Solutions

PertSol works closely with the leading telecom operator, MNOs, network equipment providers and regulators to evolve its products with ever changing technology and market trends . In it's bid to keep track of the market & latest technology, PertSol has upgraded its product as per the 5G standards released by 3GPP in its Release 16.

PertSol iNterceptor has also been upgraded to fulfil lawful interception requirements for both standalone and non-standalone 5G network.

### Generic Interception Flow



# SUPPORTED

## Parameters

### Telecom Network & Services

PSTN, GSM, GPRS, UMTS, CDMA, LTE, VoLTE, 5G

XDSL, Cable, IPLC

Email (POP3, SMTP, IMAP, Webmail)

IPv4 & Ipv6

VoIP (SIP, RTP, H.323, SCCP)

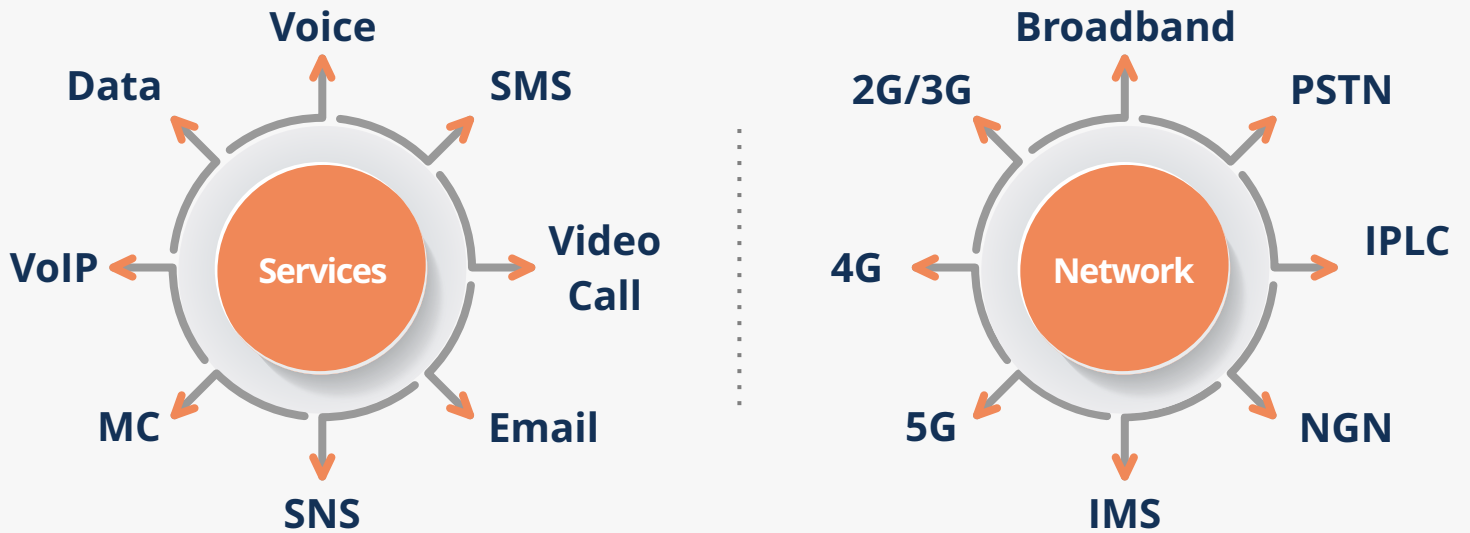
PoC (Push-to-talk over Cellular)

SMS, MMS, Voicemail

WLAN

IoT, M2M





## Multi Vendor Support

iNterceptor has an extensive list of modules to support direct integration with major versions of network elements. These modules have proven their worth and stability in the field. PertSol maintains an active relationship with these vendors to keep up to date with new versions of the network equipment, verified with an IOT (Interoperability Test) in the vendor lab where possible. iNterceptor supports all the major NEPs of the world like Nokia, Ericsson, Cisco, Brocade, Alcatel Lucent, ZTE, Huawei, Samsung, Juniper, Genband, Comverse, Arris, Nortel, Openwave, Qualcomm and many more.

## Network Interface



## Output & Delivery Format

iNterceptor supports the following output and delivery formats.

Data Type	Output Format	Delivery Format
Traffic Content	Packet Capture (Pcap)	File Transfer Protocol (FTP)
	J-STD-025B (ANS.1)	J-STD-025B (Data Stream)
Interception Related Information	Packet Cable	Custom
	ETSI	File Transfer Protocol (FTP)
	Custom	Relational Database Loader
	XML	J-STD-025 (Data Stream)
	Compact XML	Specific or Custom Adaptors
	J-STD-025B (ASN.1)	
	IPDR	
	Flat File	
	Annotated Flat File	
	Packet Cable	
ETSI		
Custom		

## Technical Standards

Some of the main LI standards that iNterceptor complies with are mentioned below:





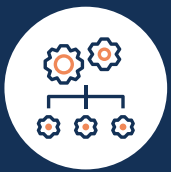
# KEY BENEFITS

## Solution With Excellent Capabilities



**High Performance Mediation:** iNterceptor is capable of handling network with very high throughput requirements. It can handle multiple 100 Gbps links and is capable of selecting required traffic from these links. PertSol iNteliProbe have been tested & implemented for traffic up to 40 Gbps per probe.

**Integrity Check Mechanism:** The integrity check mechanism periodically checks the network elements & if required correct the erroneous states. It will query the network element for the placed intercepts & add missing intercepts, remove invalid intercepts, etc. This mechanism is used to detect & correct both network flaws as well as tampering with the interception solution. In case of correction of an erroneous state, this will be notified to the operator.



**Modular Architecture:** iNterceptor allows configuration of multiple Input & Output Adapters to be combined in one system & support any situation like inter-working between different technologies or scaling upto include latest technology. Due to iNterceptor's modularity, telecom operators can leverage their investment for a longer duration & scale up their network with more flexibility.

**Extensive Interface Adapters:** iNterceptor has a vast range of Input/Output adapters which makes it compatible with all the available access technologies and network equipment of all the major equipment providers. If required, customer-specific Input or Output adapters can be developed.



**Support Hybrid Network:** Due to its design philosophy, iNterceptor can support hybrid networks with equipment from different vendors on same server. When networks grow or change, iNterceptor can easily be extended to cater for the growth in traffic volumes or new types of network elements.

**Compliance:** Unified solution for all interception requirements of a service provider which is compliant to international standards like 3GPP, ETSI, ATSI, ANSI, CALEA and others. It also complies with local LI regulations of many countries across the world.



**Proven Field Record:** PertSol's LI is a proven and mature solution that continues to benefit from functional enhancement and feature evolution. It has been deployed in varied networks, enabling TSPs / Law Enforcement Agencies to benefit.



# PertSol<sup>®</sup>

Simple Solutions for Complex World

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