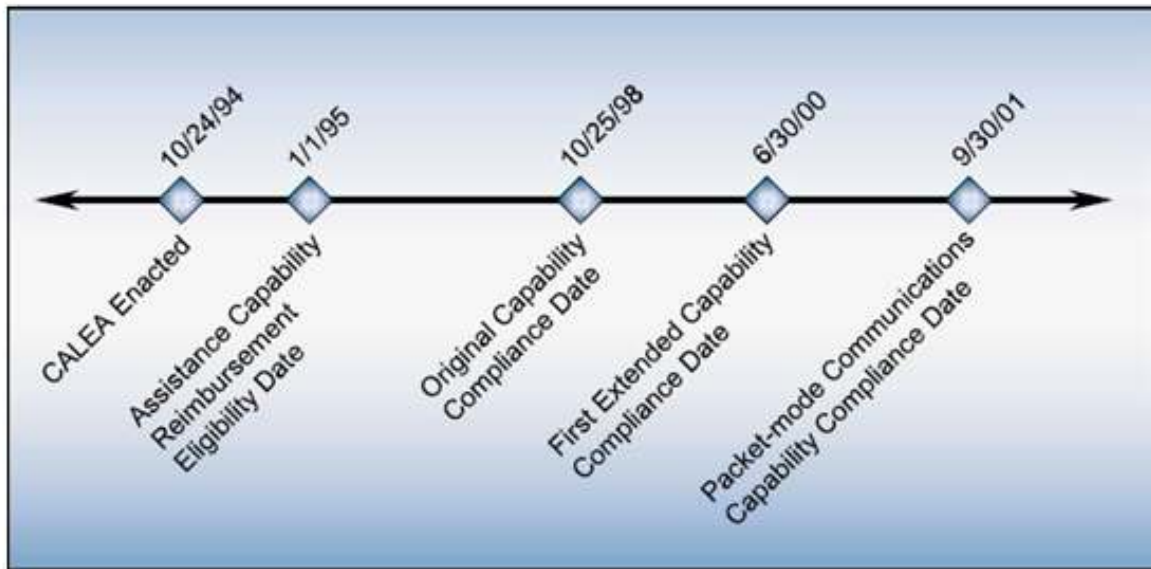


1) INTRODUCTION

CALEA: Communications Assistance Law Enforcement Agency

“In response to concerns that emerging technologies such as digital and wireless communications were making it increasingly difficult for law enforcement agencies to execute authorized surveillance, Congress enacted CALEA on October 25, 1994. CALEA was intended to preserve the ability of law enforcement agencies to conduct electronic surveillance by requiring that telecommunications carriers and manufacturers of telecommunications equipment modify and design their equipment, facilities, and services to ensure that they have the necessary surveillance capabilities. Common carriers, facilities-based broadband Internet access providers, and providers of interconnected Voice over Internet Protocol (VoIP) service - all three types of entities are defined to be "telecommunications carriers" for purposes of CALEA section 102, 47 U.S.C. § 1001 - must comply with the CALEA obligations set forth in CALEA section 103, 47 U.S.C. § 1002” [2]

The following chart shows the FCC timeline to implement the feature by the telecom carriers in their equipment/network.



[4]

2) LI (Lawful Intercept) SOLUTION OVERVIEW:

Lawful Interception (LI) is the interception of telecommunications performed by law enforcement agencies (LEA) based on national legislation to help LEA to combat against criminal activities. All interceptions must have proper authorization from competent authorities.

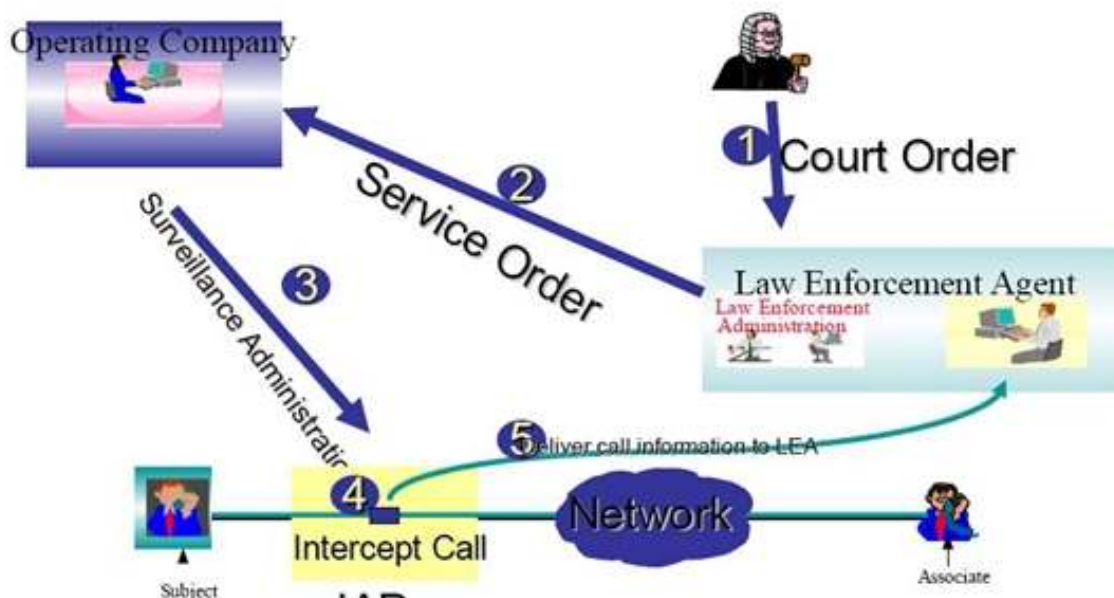
Based on the service types, interception falls into Intercept Related Information (IRI) interception and Content of Communication (CC) interception. The Intercept Related Information refers to signal information about the target communications, including destination of a voice call (for example, called telephone number), source of a call (calling phone number), time of the call, duration, and so on. Content of Communication is namely the voice, email content or message content.

Based on the way of retrieving interception information, interception falls into real-time interception and historical interception. During real-time interception, the LEA interception and the target communication take place simultaneously. During historical interception, the LEA intercepts communications that have occurred before the interception, for example, intercept historical short messages. This is basically extracting the archived data

The LI follows a standard global legacy interface with key interfaces such as:

- 1) HI1 - Handover Interface One - Administrative Information
- 2) HI2 - Handover Interface Two - Intercept Related Information
- 3) HI3 - Handover Interface Three - Content of Communication
- 4) LI1- Lawful Interception Interface One - Interception Procedures

2.1) Lawful intercept overview of the process

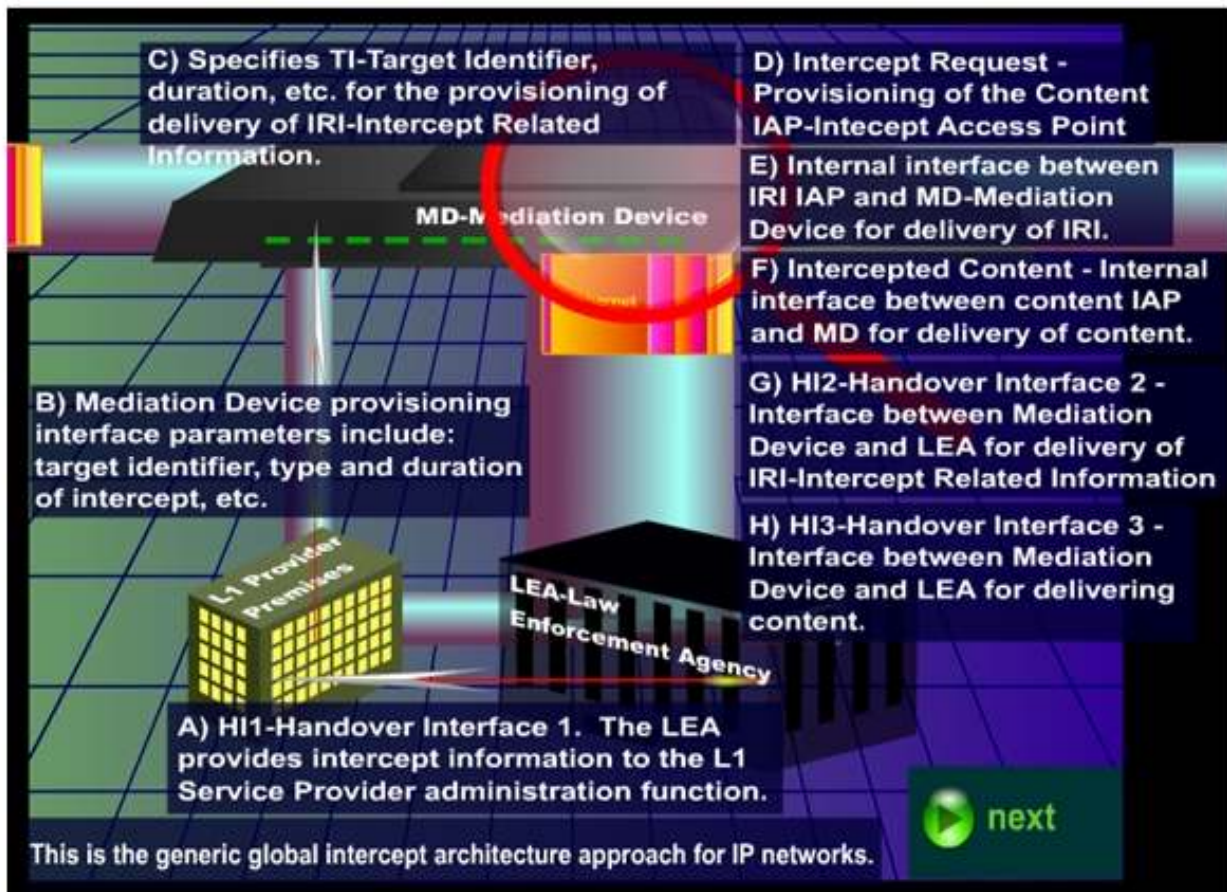


2.2) Lawful Intercept for VAP solutions

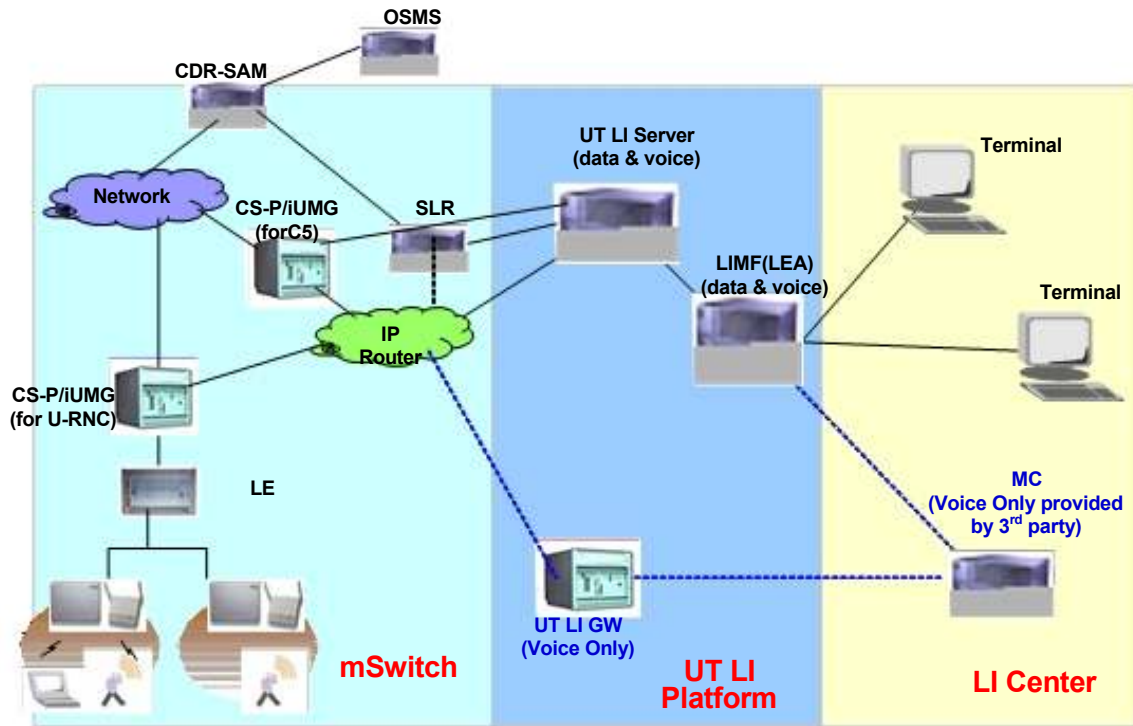
2.2) Lawful Intercept process for a VOIP call

The FCC was little skeptical in implementation of this feature when it came to VOIP service providers. The FCC was under the impression that it is difficult for the VOIP service providers that they can't extract the DDE (Dialed Digit Extraction) unlike their

traditional voice counterparts who use the PSTN switches for enabling this feature. However the ISP's adapted to a new standardized approach which is TTP (Trusted Third Party) service called the network MS Media-Service (L1 Provider Premises and LEMF (Law Enforcement Monitoring Facility). Below is a slide that explains in details the flow of the call and how the information is passed on to the legal authorities. [4]



3) UTSTARCOM's IMPLEMENTATION OF LI



[5]

The LI Platform is composed of the LI Server (LIS), LI Gateway (GW), and Lawful Interception Monitoring Facility (LIMF).