CALEA Compliance and Cross Communications

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CALEA compliance and its implication on Cross Communications

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Introduction

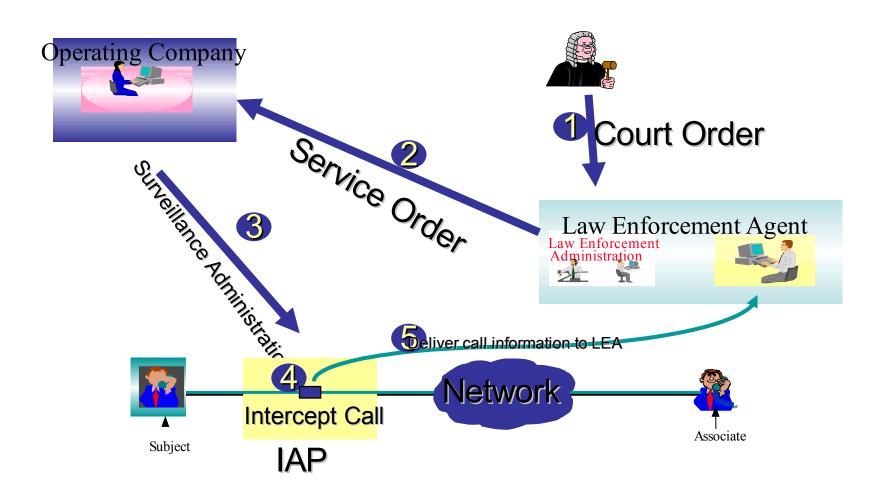
- CALEA: Communications Assistance for Law enforcement Act (1994)
 - It is a Federal Law requiring the Telecommunication Service Providers to assist law enforcement agencies to legally intercept and monitor calls going through their network
- Two kinds of intercepts
 - Call Identifying Information only
 - Call Identifying Information plus Call Content
- Each intercepted call may have to be delivered to up to 5 LEAs
 - Local police, FBI, DEA, etc.
- CALEA information provisioned within the network components should be known only to authorized personnel of the operating company
 - Neither the intercept subject nor the associate can get any clue about the interception
 - The interception is expected not to disturb (nor remove any) of the communication services of the parties involved in the call.
 - When multiple LEAs are intercepting the same call, the fact that the call is being intercepted by one agency shall not be revealed to the other agencies
 - When call goes through the network elements of more than one service provider, the service provider that is serving the CALEA should not reveal the fact that the call is being intercepted to the other service provider.

Requirements

- Who has to comply with the law?
 - From http://www.askcalea.net/faqs.html
 - "All telecommunications carriers as defined by Section 102(8) of CALEA.

 Basically, this includes all entities engaged in the transmission or switching of wire or electronic communications as a common carrier for hire".
 - A telecommunications service provider shall provide CALEA capabilities irrespective of whether circuit mode or packet mode technologies are used.
- How to comply?
 - The conformance to CALEA means that the telecommunications service providers should have the capabilities built into their deployed networks in identifying, intercepting and delivering the communication information exchanged to and from intercept subjects (certain target subscribers they serve) to the law enforcement agencies
 - Also, CALEA cannot not really stop a technological innovation! However, that technological innovation shall ensure that CALEA compliancy is not compromised (in other words, incorporate the capabilities to support the interception and delivery of call identifying and communication content to the law enforcement agencies.
- The interception of communication information includes the interception of the following two:
 - Call identifying information or call data
 - Communication Content (or call content).

Overview of the Process



Cross (MS-RS-MS) Communications

- As proposed in C80216j-06_055r1 & C802.16j-100, allowing (data) MS-RS-MS without going through the BS for the following reasons:
 - Data traffic can be delivered faster and consumes less resources
 - DL and/or UL stream can be made more independent
 - BS processing load is reduced for data traffic
- RS could be one or both of the following:
 - Service Provider equipment:
 - The Service Provider owns the content provisioning and per CALEA must provide interception capability of Call identifying information and Communication Content (or call content)
 - Call interception must be provided by the RS (thru the Network or Service Provider)
 - Consumer owned and resides at customer premise:
 - Since the interception cannot be done at the equipment that resides at the customer premise and since CALEA cannot really prevent a technological innovation and since a network element is not involved in the bearer path, one could argue that CALEA compliance is not needed for the interception of communication content. But, since the signaling still goes through the network element, capabilities to intercept and deliver the call identifying information will still be needed.

Summary

- At present, BS and MMR-BS provides calls (signaling & data) interception capabilities
- To be CALEA compliance for Cross Communications, call interception by the RS is required by law
 - RS part of Service or Network Provider equipment
- For RS to be CALEA compliance
 - Data traffic has to be "relayed" back to the BS causing additional traffic (for all calls, not just those calls that are to be intercepted), or
 - RS needs to have the similar capabilities as a MMR-BS to intercept calls i.e. an RS that behaves like a "pseudo" BS?
- Proposal: Technical requirements exclude Cross or MS-RS-MS Communications for 802.16j