

5ESS VOICE SWITCH TO LAW ENFORCEMENT CALEA CALL MONITORING EQUIPMENT VIA X.25/TCP/IP NETWORK

APPLICATION NOTE

APPLICATION OVERVIEW

The AI296 (16-Port High Speed Multi-Protocol Line Card) mounted into the Alswitch (AI180I, AI130, and AI110 Series Chassis) allows you to connect a 5ESS call data channel (CDC) to a law enforcement agency (LEA) for compliance with communications assistance for law enforcement act (CALEA) guidelines. CALEA requires a telco service provider to forward call setup data to LEAs for directory numbers under surveillance. The 5ESS provide this information on its CDC channel, which is connected, to the AI296. This means you can comply with CALEA and provide multiple LEAs, local police, FBI, etc., with the required call setup data from one secured access point. The Alswitch allows you to connect the CDC to your IP network so remote users, the LEAs, have access to the CDC channel.

The AI296 provides the way to get the CDC application on your TCP/IP network. This means you can utilize all the advantages of your TCP/IP network, firewall security, higher speed, network monitoring, etc., while providing the LEA the required access. Typically, telco service providers connect the LEAs to the internal TCP/IP network via an X.25 56K line. This line connects to an Alswitch closest to the LEA. This means your TCP/IP network is completely secure from remote access through the LEA due to Applied Innovation's exclusive alias technology. Other access methods, dial-in, or giving the LEA firewall access, can't provide this level of security.

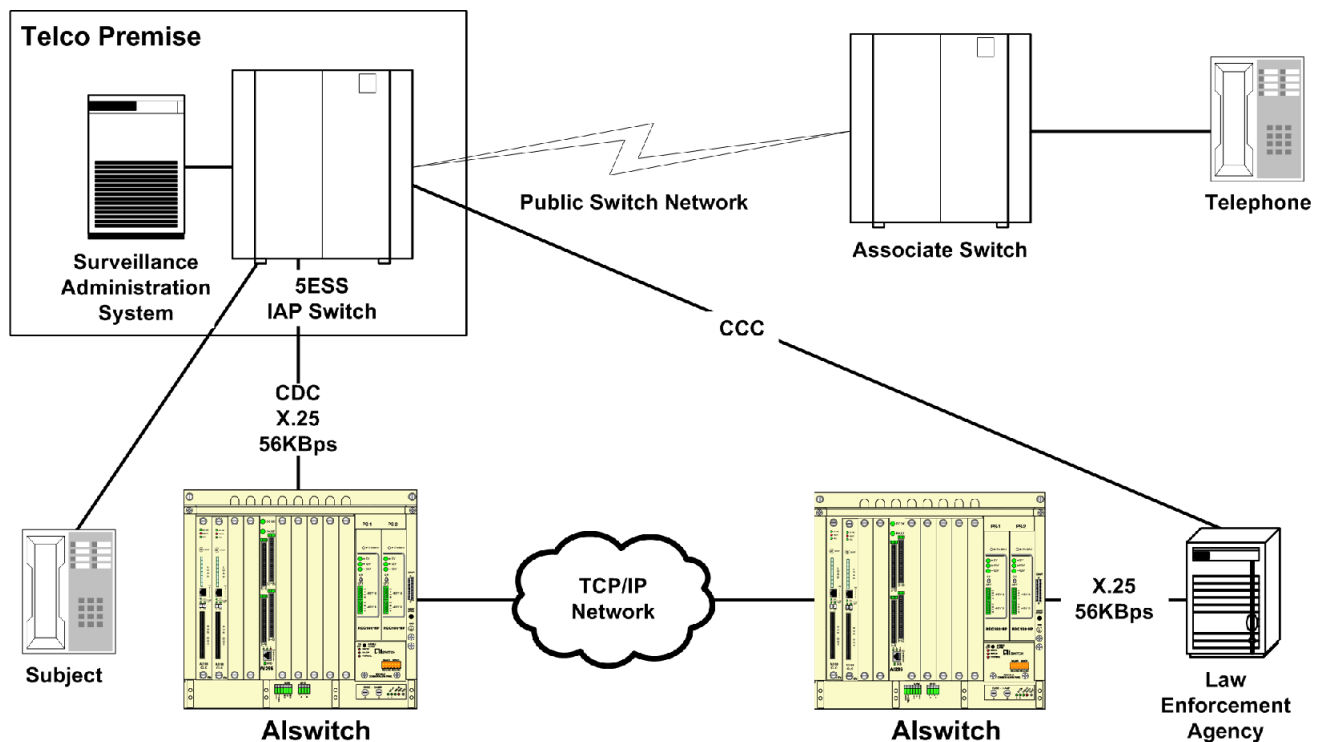
FEATURES & BENEFITS

- **Complies with "CALEA" (GR2973) connectivity requirements** - Get your company CALEA compliant with a proven industry solution.
- **Simple and elegant implementation** -The AI296 allows you to implement the CDC application in a standard TCP/IP routed network with no modification or special configuration on your routers.
- **Fully secure implementation** - The AI296 and Applied Innovation alias technology ensure the LEA to CDC connection is completely secure across your TCP/IP network. Dial-in and external firewall access can't provide this level of security.
- **Implement CALEA in your NEBS environment** - The AI296 and Alswitch are NEBS Level 3 certified.
- **Use your existing infrastructure** - This application can be implemented on your exiting Alswitch and TCP/IP network.
- **All your 5ESS OAM&P applications on one platform** - The Alswitch supports the operations, administration, maintenance, & provisioning (OAM&P) applications on your 5ESS. This allows you to quickly implement your switch management and provides you a single, SNMP managed platform for your mission critical class 5 operations.

AI COMPONENTS

AI Product Model Number	Description
AI296	16-Port High Speed Multi-Protocol Line Card
Alswitch	AI180I, AI130, and AI110 chassis and common equipment are NEBS Level 3 compliant, -48V DC enclosure for the Telco office environment
CAB162	Connects AI296 card to DP196 distribution panel
DP196	Distribution panel for AI296 card, available with RS232, RS530 or V.35 interfaces

ARCHITECTURE OVERVIEW



This is how it works:

1. After court approval, the LEA requests surveillance for a specific directory number (DN) through the service provider, RBOC or CLEC. The service provider establishes the surveillance through the surveillance administration system. The surveillance of the directory number (DN) is established in the Internet access provider (IAP) voice switch. Actual voice messages are then transferred to the LEA via the call content channels (CCC).
2. The IAP voice switch uses the CDC to transfer call data information to the LEA. The call data information includes the following surveillance events: Answer, Progress, ConferencePartyChange, Connection, ConnectionBreak, DialedDigitExtraction, NetworkSignal, Origination, PacketEnvelope, Redirection, Release, ServingSystem, SubjectSignal, and TerminationAttempt.
3. The AI296 connects to the 5ESS switch via an external T1 Mux/CSU/DSU. The X.25 link can operate up to 56kbps. The AI296 card provides the flexibility to transport the call data information to the LEA over a TCP/IP network.
4. The AI296 line card connected to the IAP mediates (translates) the X.25 packet to TCP/IP. The IP packets traverse your TCP/IP network to the point of presence (POP) closest to the LEA. The AI296 at that POP takes the data back to X.25 for delivery to the LEA on a 56K data circuit.

Please note, Alswitch has the capability to support multiple, diverse applications in addition to the application presented in this document. For information on additional applications, please visit our web site at www.aiinet.com.