will impact the availability of this limited resource for use by other call attempts and may impact the ability to process calls within specified parameters. The 5ESS Classic Switch Module architecture will not permit the addition of more tone decoder resources beyond a specified limit regardless of call processing requirements. (44-45)

7. In one implementation, voice-recognition dialing permits a subscriber to call a second telecommunications carrier and then to speak the name of a person, whose number is then dialed by the second carrier. In order for the subscriber's original carrier to provide post-cut-through digits for such calls, it must directly integrate its network facilities used for interception with the equipment and/or database of the second carrier, and possibly to install voice-recognition hardware and software in its own switches. Installing voice-recognition in the subject's switch (IAP) could not duplicate the same 'controlled environment' that is present in the second carrier, e.g., "speak Bob or Call Home". Establishing a 'free speech' environment in the subject's switch is not technically possible. (45)

8. Local signaling activity, *e.g.*, signaling that is internal to a private branch exchange ("PBX") or other customer-premises equipment ("CPE"), is typically not detected by a telecommunication carrier's switches. (50)

9. Private networks are exempt from CALEA compliance.

10. Local switches do not typically sense audible tones generated by remote networks. For example, in the frequent circumstance where a subscriber makes a long distance call, the ring or busy signal for the called party is generated by the switch of a carrier other than the subscriber's carrier. The subscriber's switch detects only whether the subscriber continues the call or hangs up. In any event, it is the subscriber's action and not the remote audible signaling information that is detected by the local switch. (58-59)

11. "Calling name information" provided by a network database is likely to be incorrect if the calling party is not using his or her own telephone. (fn. 155)

12. If carriers were required to provide feature status messages at the time that the subscriber submits a request to the carriers' business office, carriers would have to reconfigure entire customer service databases and other operating software to provide automatic messaging to law enforcement. (71)

13. Packet-switched communications involve the combination of call content and call-identifying information within packets. The content portion of the packet is separated from the call-identifying information in the packet "header" only at the switch origination and switch termination points of the packet-switched communication. (78)

14. Telecommunications carriers, unlike information service providers ("ISPs") almost always carry only assembled packets. ISPs receive packets directed to them (or to one of their customers), and send packets to a specific IP destination. (79)

15. Many packet data protocols (such as the TCP/IP protocol used on the Internet) permit packets from a single communication to travel to their destination by multiple routes. (79)

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

David B. Smith 6-12-98

State of Illinois
County of DuPage

Sworn to and subscribed before me
this 12th day of June, 1998.

Judith A. Spohn
Notary Public
My commission expires:
SEAL

"OFFICIAL SEAL"
JUDITH A. SPOHN
Notary Public, State of Illinois
My Commission Expires 01/06/00

Note: Parentheticals at the end of the above paragraphs reference the Comments of the Telecommunications Industry Association filed with the Commission on May 20, 1998.

Declaration of David Cushman of Motorola, Inc.
in Support of
Comments of The Telecommunications Industry Association

I, David Cushman, declare and depose as follows:

1. I have been employed as an engineer with the Cellular Infrastructure Group and its predecessors at Motorola, Inc. ("Motorola") since 1981. I have been a practicing engineer for a total of 17 years. I received a bachelor's degree in Electrical and Computer Engineering from The University of Wisconsin - Madison in 1981.

2. I am familiar with Motorola's efforts to implement the Communications Assistance for Law Enforcement Act ("CALEA") and the matters set forth in this declaration. Motorola has authorized me to submit this declaration in support of the Comments of The Telecommunications Industry Association.

3. The capabilities of existing telecommunications networks cannot ensure the delivery of call-identifying information within three seconds of the event producing the call-identifying information. (63)

4. While the time stamp in call data messages provided under J-STD-025 will be very accurate with respect to the time an event is detected at the intercept access point, modern telecommunications networks cannot ensure time-stamping of that event within 100 milliseconds of the detection of the event. (67)

5. It would be extremely difficult, for purposes of implementing a "surveillance status message" verifying that an interception is in place and working properly, to verify electronically that every relevant mobile switch is operational and properly configured for the intercept. Under existing wireless architecture, there is no infrastructure in place that permits a carrier to poll mobile switches in this fashion. (70)

6. Post-cut-through dialing information consists of numbers dialed after a call circuit has been completed by the carrier to which an intercept order is directed. A call is said to have been "cut through" when a circuit to the called party has been completed. (41)

7. Since a carrier generally does not need to use post-cut-through dialed digits for call routing (or any other purpose), such digits will usually not be detected by the carrier's switch. (44)

8. Modern switches detect dialed digits by means of a "tone receiver," which is connected to a call circuit only until the call is cut-through. After that point, the

tone receiver is available for use on another call. Because tone receivers can be repeatedly used in this manner, manufacturers build switches with a number of tone receivers that is far lower than the number of simultaneous calls that the switch can support. Therefore, it would require major systems modifications to dedicate a tone receiver for the duration of each call, which would be necessary to detect post-cut-through digits. (44-45)

9. Voice-recognition dialing permits a subscriber to call a second telecommunications service provider and then to speak the name of a person, whose number is then dialed by the second service provider. In order for the subscriber's original carrier to provide post-cut-through digits for such calls, it would need to directly integrate its network facilities used for interception with the equipment and/or database of the second service provider, and possibly to install voice-recognition hardware and software in its own switches. (45)

10. Current technology does not enable a telecommunications carrier to distinguish post-cut-through digits used for further call routing by another carrier from digits used to convey private or protected information, such as credit card numbers. (46)

11. "Calling name information" provided by a network database is likely to be incorrect if the calling party is not using his or her own telephone. (fn. 155)

12. If carriers were required to provide feature status messages at the time that the subscriber submits a request, carriers would have to reconfigure entire customer service databases and other operating software to provide automatic messaging to law enforcement – a capability that is not even remotely supported by the present design of these systems. In some cases, the carrier would have to interconnect their operating systems support networks with those of contractors and other service providers who are responsible for processing customer profile information. (71-72)

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

David Cushman

Sworn to and subscribed before me

this 9th day of June, 1998.

Notary Public

My commission expires:

"OFFICIAL SEAL"
JACQUELINE RUSSO
Notary Public, State of Illinois
My Commission Expires March 7, 2000

SEAL

Affidavit of Samuel S. Hoffpauir of Northern Telecom Inc.
in Support of
Comments of The Telecommunications Industry Association

I, Samuel S. Hoffpauir, declare and depose as follows:

1. I have been employed as an engineer with Wireless Networks at Northern Telecom Inc. ("Nortel") since May 1992. I have been a practicing engineer for a total of 6 years. I received a Bachelor of Science degree in Electrical Engineering (Computer Option) from the University of Southwestern Louisiana in 1992.

2. I am familiar with Nortel's efforts to implement the Communications Assistance for Law Enforcement Act ("CALEA") with respect to the Nortel Wireless Networks DMS-MTX platform and the matters set forth in this affidavit. Nortel has authorized me to submit this affidavit in support of the Comments of The Telecommunications Industry Association (TIA). I am supplying the following technical information on the specifically delineated "punch list" features described below. The following statements apply only to the Nortel MTX wireless technology.

3. **Delivery of Conference Call Conversations That Cannot Be Heard Over a Subscriber's Facilities**

   When a subject drops from a three-port conference call on the Nortel DMS MTX wireless switch, the conference bridge and all parties involved are disconnected (i.e., "taken down") and cannot rejoin the conference if the subject originated both legs involved in the conference. If the subject originated only the second leg of the three-port conference, then when the subject drops from the three-port conference, the subject's facilities are released, the conference bridge is disconnected (i.e., "taken down") and the other two parties (i.e., "associates") involved in the conference are transferred to a two-port call. Those two parties may continue the conversation without the use of the subject's facilities.

   If a conference call is established by a party other than the subject (i.e., "an associate") on a different switch than the switch serving the subject, then the subject's switch has no way of capturing any call content beyond what is transmitted from the associate's switch. (33)

4. **Post-Cut Through Dialing**

   Post-Cut-Through Dialing consists of dialed digits generated after a call has been set-up. Call set-up includes routing and establishment of a speech path between the circuits involved in the call. MTX switches detect dialed digits through the use of a digit "tone receiver" which is generally used only in call set-up for those circuits which require dialed digits in their signaling protocol.

Since call set up is only a fraction of the time of a typical call, digit "tone receivers" are engineered to be shared by many calls for call set up. This means that the switch has a far lower number of digit "tone receivers" as compared to the total number of simultaneous calls that the switch can support. To dedicate a digit "tone receiver" for the entire duration of a call requires software modifications and additional hardware which would serve no other purpose than to collect these digits. A "tone receiver" does not have the ability to identify the purpose for which digits are being dialed. (44-45)

5. **Local Signaling Activity**

Nortel DMS-MTX wireless switches do not detect local signaling activity (e.g., signaling that is internal to other customer-premises equipment "CPE"). Equipment can exist between the switch and the subject's terminal that performs signaling information unknown to the switch. (50)

6. **Network-Generated In-Band and Out-of-Band Signaling**

The local switch does not have the capability to detect audible signaling information from remote switches. Therefore, this information cannot be reported. (58-59)

7. **Surveillance Status Message**

As compared to the stationary users of a wireline network, a significantly greater number of circuits and certainly more than one switch is required for monitoring the call content for a wireless network due to the subject's mobility. To accomplish this functionality, circuits must be specifically provisioned for monitoring on all switches in the wireless network. (70)

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

Samuel S. Hoffpauir

Sworn and subscribed before me
this 11th day of June, 1998

Ava A. Humphrey
Notary Public

AVA A. HUMPHREY
NOTARY PUBLIC
State of Texas
Comm. Exp. 06-09-99

My commission expires: 6-9-99

CERTIFICATE OF SERVICE

I, Maury Shenk, an attorney in the law firm of Steptoe & Johnson, L.L.P., hereby certify that I have on this June 12, 1998 caused to be served by first class mail, postage prepaid, or by hand delivery, a copy of the foregoing Reply Comments of the Telecommunications Industry Association to the following:

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