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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

VIA HAND DELIVERY

Myron Peck, Deputy Chief
Mobile Services Division
Federal Communications Commission
Room 644
1919 M Street, N.W.
Washington, D.C. 20554

Re: Ex Parte Presentation
(two copies filed with Secretary's Office)
Implementation of Sections 3(n) and 332
of the Communications Act, General Docket No. 93-252

Dear Myron:

In light of your inquiry, I thought you might be interested in the attached excerpt of testimony from Ralph L. Widmar concerning the cellular resellers' switch.

If you have any other questions concerning the switch, please let me know.

Sincerely,

KECK, MAHIN & CATE

Attorneys for
Cellular Service, Inc.

By: *LJP*
Lewis J. Paper

cc: David Nelson
Steven Muir
Peter Casciato, Esq.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY
Cellular Service, Inc.
Testimony of Ralph L. Widmar
Reseller Switch Proposal
August 30, 1991
I.88-11-040

1Q. Please state your name, title, and business address.

A. My name is Ralph L. Widmar. I am a partner in Network Intelligence, which is a telecommunications management consulting firm I founded in 1985. My business address is 460 Alma Street, Suite 100, Monterey, CA 93940.

2Q. Please give us a brief resume of your educational background and professional qualifications.

A. I graduated from the University of Colorado in 1978 with a degree in Communications. I went to work for Mountain Bell as a communications consultant and held a variety of positions with Mountain Bell and AT&T. My last position with Mountain Bell was a corporate product and market manager in the Public Services are. I also worked with AT&T and Bell Laboratories on a variety of projects.

3Q. What other work experience do you have in the field of telephony?

A. Upon leaving the Bell system in 1982, prior to divestiture, I became involved with a long distance telephone company that was involved in the resale of and shared use of WATS lines. As a regional vice president of operations, it was my function to coordinate the installation of tandem switching equipment and of telecommunications transmission facilities. I also designed networks and worked on billing systems. I subsequently moved to Monterey, CA in 1984 and became the Operation Manager for Telemarketing Communications of Monterey, a

long distance reseller. In 1985, I became an independent consultant for both interexchange carriers and local exchange carriers.

4Q. On whose behalf are you appearing in this proceeding?

A. I am appearing on behalf of Cellular Service, Inc. ("CSI").

5Q. What is the purpose of your testimony in this proceeding?

A. I will discuss various features and service offerings that CSI will be able to provide if it is permitted to interconnect its own switch with the Mobile Telephone Service Offices ("MTSOs") of the radio-based cellular carriers and the Public Switched Telephone Network. These services are currently unavailable to the end-user in part because they may be too cumbersome or processor-intensive for the radio-based carriers to provide.

I will also explain how the introduction of the CSI switch can alleviate technical difficulty and economic inefficiency currently associated with roaming by cellular end-users.

6Q. What are some of the features and services CSI will be able to provide as a switch-based resale carrier?

A. The flexibility introduced into the cellular system through CSI's operation of its own switch will enable CSI to provide innovative features and services which can be variously modified to address the needs of individual subscribers. For example, these services and features could include:

Limited Calling Areas. For a reduced monthly rate, CSI could screen calls originated from a cellular telephone to allow completions of calls only within a local calling area, or a calling area that was specified by the customer, or only to particular telephone numbers.

Incoming Call Screening. Only calls from telephone numbers on an "approved" list of numbers (designated by the subscriber and resident in the database of the CSI switch) would be forwarded to the subscriber's cellular telephone.

Distinctive Call Signaling. Calls from particular telephone numbers, resident in the database of the CSI switch for a specific CSI subscriber, can be programmed to signal the subscriber via distinctive tones of specific calling parties such as place of work and home.

Priority Call Waiting. Calls from designated telephone numbers resident in CSI's database would be routed to the cellular telephone directly, while calls from other parties would be routed to voice mail. This would enable the caller to only be interrupted by calls from these designated numbers.

Cellular Extension. A cellular telephone could become an extension of a telephone at the subscriber's office. When a call is placed to the telephone number of the customer's cellular telephone, the CSI could also simultaneously ring a telephone designated by the subscriber.

Cellular PBX. Extension of traditional telephone lines such as Private Branch Exchange ("PBX"), Business lines, and

Residential service into the cellular network can be provided by CSI, as a switch-based reseller. This service would allow a cellular subscriber to be reached by dialing a single number and having the call routed to the subscriber's office phone, car phone or hand-held portable phone.

Cellular Centrex ("CelTrex[®]") is an additional example of the extension of traditional telephone services that CSI could provide its customers. All of the same features that are now provided on a landline-based system can be provided on a wireless cellular system. CelTrex[®] can also be combined with the landline-based system to provide a complete communications system for the customer.

Voice Mail Enhancements. When a call is placed to a cellular telephone of a subscriber, and that call is forwarded to the voice mail box where a message is left, CSI could provide the appropriate signaling to telephone numbers specified by the user for message notification.

Dual-System Access. CSI subscribers would have no need to subscribe to service from both radio-based carriers within the same MSA to compensate for the uneven quality of service. Since the CSI switch would be connected to both carriers' systems, it could assign each subscriber a single unique number and switch any call through either carrier's cellular radio network.

Custom Directory Service. CSI would provide customer operator services for its subscribers. One example would be when a subscriber dials a telephone number for information, an

operator could not only inform the user of the desired telephone number, but give the user the option of placing a call to that number without hanging up or redialing.

Cellular Secretary. Using the same technology used to provide the above service, a subscriber could have access to a 24-hour secretarial service that would make travel, hotel and restaurant reservations, and give driving instructions in the local area. This would be an invaluable service for frequent travelers.

Multi-Line Hunting. A subscriber could have multiple cellular telephones that would continue to ring on sequential lines if the first line was busy, similar to the way in which office telephone systems operate.

7Q. Briefly, what are some of the practical problems presently encountered by cellular end-users when roaming?

A. Currently, roaming can be a cumbersome and complicated process. Depending upon the radio-based cellular carrier, a roamer is handled usually in one of four ways: (a) provided service without intervention, (b) provided first call but subsequent calls may or may not be denied, (c) calls are blocked and service is denied until carrier receives a valid form of payment, or (d) all access to the cellular system is denied.

Some radio-based cellular carriers serving areas that have heavy roaming between themselves will interconnect their switches to provide roamers service without intervention. The availability of this "seamless" roaming is limited because the

switches serving the areas must be from the same manufacturer. In addition, the switches must be interconnected with dedicated voice and data circuits.

The most common method of handling roamer traffic today is to allow the first call and then the switch requests a verification of the roamer's status from its home carrier. This involves the use of an external database service known as Positive Roamer Validation ("PRV"). The carrier's switch has a data circuit (anything from dial-up to dedicated) to the PRV service and after the first call is placed, it sends the roamer's identification to the service for validation. This process can take up to an hour or longer to complete, during which the radio-based carrier will usually deny any further service. Moreover, the radio-based carriers normally only provide this service to roamers of like carriers, that is, A block to A block, and B block to B block.

CSI subscribers are hampered by the fact that the only roaming agreements are between radio-based carriers. In addition, several different methods are used to validate and carry subscriber calls. Occasionally CSI subscribers are refused roaming because of problems from one radio-based carrier with another.

8Q. How will the CSI switch affect the current roaming process?

A. CSI will directly connect to switches where it is economically feasible and where its customers have the greatest

amount of roaming needs. By direct connection to radio-based cellular carriers in other cities, where CSI is also a reseller, each of CSI's NPA-NXX codes will be programmed into the radio-based cellular carrier's switch and forwarded to CSI for processing. CSI expects that it would provide greater efficiencies and be charged the same airtime rate for every minute used by each of its customers, based locally or not, thereby eliminating current onerous roaming charges.

90. Are there other services that a switch-based cellular reseller can offer in addition to those already mentioned?

A. Most of the services outlined in this testimony are related to features and functions that occur prior to or during call processing. By operating its own switch, CSI could also enable the subscriber to design its own billing format, using a variety of custom billing options. These would include:

Client-Code Billing. A user could enter a two- or three-digit code with each telephone number that is dialed from the cellular telephone, and charges for that call would accrue to the "account" of the client to be billed.

Immediate Billing. This refers to the capability of the CSI switch to output call detail records in real time. This would include both financial verification of calls in addition to unit verification. These records could be made available to customer service representatives, so that a customer who experiences a poor quality call can receive immediate credit. This would also allow customers the ability to establish call limits that would

disallow any further calls above that limit, except for certain telephone numbers and emergency services.

From the switch-based carrier's perspective, pre-set credit limits could be established on a per-customer basis. Customers who present credit risks could be required to pre-pay for service, or could be billed on a more frequent basis.

Billing Computer Link. On a time interval specified by the subscriber, call records could be output from the CSI switch directly to the subscriber's computer system. Large accounts could use this feature to monitor the calls of employees, and non-switch-based cellular resellers would have immediate access to the call detail records of their subscribers.

10Q. Does this conclude your testimony?

A. Yes.