

ORIGINAL

BEFORE
THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition by Wireless One Network, L.P.,)
for Arbitration of Certain Terms and Conditions)
of a Proposed Agreement with Sprint Florida,)
Incorporated Pursuant to Section 252 of the)
Telecommunications Act of 1996.)

Docket No. 971194-TP

PREFILED TESTIMONY OF
JOHN MEYER

Wireless One Network, L.P.
Exhibit 2.0

October 7, 1997

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1 Q. Please state your name and business address?

2 A. John Meyer, 2100 Electronic Lane, Ft. Myers, Florida, 33919.

3 Q. By whom are you employed ?

4 A. Wireless One Network, L.P. as Systems Engineering Manager.

5 Q. What is your educational background?

6 A. I have an associates degree in electronics and also possess a general radio
7 telephone FCC license and NABER license. In addition, I have attended
8 numerous seminars on radio telephony over the past 15 years to remain current
9 with the latest technology.

10 Q. How long have you been employed by Wireless One?

11 A. I have been with Wireless One, including its predecessor, since it first obtained
12 operating authority in 1990.

13 Q. What did you do before that?

14 A. Since 1984, I worked under Wireless One's managing general partner in his
15 proprietary paging and two-way mobile and SMR business, Qualicom Electronic,
16 which is a wireless carrier serving most of the Ft. Myers LATA.

17 Q. What were your job responsibilities with Qualicom?

18 A. From 1985-1990, I was its chief technician responsible for 35 plus transmitter
19 sites in a nine county area similar to Wireless One's, but including Sarasota
20 County a portion of that time.

1 Q. Did you have dealings with Sprint (United Telephone) during your Qualicom
2 employment?

3 A. Yes, I ordered most of the interconnections we made with Sprint. I installed and
4 maintained the connections and also supervised their installation and
5 maintenance.

6 Q. Have your responsibilities changed in your relationship with Sprint?

7 A. From 1990-1995, I was the Technical Operations and Switch Manager for
8 Wireless One, supervising up to seven technical assistants in installing and
9 maintaining our own network, including its many intercarrier connections. My
10 present responsibility is more supervisory and less direct, but no changes in our
11 connectivity with other carriers occur without my knowledge and participation.

12 Q. Are you familiar with the Sprint technology used in providing basic intra and
13 interexchange services within the Ft. Myers LATA?

14 A. Yes.

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

16 A. My testimony identifies and compares the components of Sprint's and Wireless
17 One's local networks and explains how calls are originated and terminated on
18 each.

19 Q. Are you familiar with Mr. Heaton's testimony?

1 A. Yes, I have reviewed Mr. Heaton's testimony (Wireless One Exhibit 1.0) and the
2 various maps depicting Sprint's and Wireless One's networks (Exhibits FJH - 1.1
3 through 1.4).

4 Q. Could you describe, briefly, the general components of each network?

5 A. Certainly. Each network contains essentially three components: (1) tandem
6 switches, (2) transmission facilities and (3) end offices. These are described in
7 detail in Mr. Heaton's testimony.

8 Q. Are each of these components physically the same for each company?

9 A. In some respects they are physically the same. In other respects, where the
10 components are not physically identical, they still perform the same functions. By
11 definition, the networks of the two companies cannot be identical. Sprint
12 provides local services as a *wireline* carrier and Wireless One provides services as
13 a *wireless* carrier. Thus, as a wireline carrier, Sprint uses a traditional tandem/end
14 office hierarchy in terminating calls throughout the LATA, while Wireless One
15 employs the same features or their functional equivalents.

16 Q. Could you elaborate?

17 A. Sure. Within the Ft. Myers LATA, Sprint and Wireless One each maintain
18 tandem switches which allow, as do all tandems, for network interconnection with
19 other tandem or end office switches, primarily through T1 lines (*i.e.*, a data stream
20 that typically allows for 24 voice channels). As to Sprint's local wireline system,
21 once a call is switched at the tandem, it is transmitted over a T1 to the end office

1 serving the called party. From that end office, the call is transmitted over a single
2 wireline to the end user's fixed location.

3 As to Wireless One's local wireless system, once a call is switched at the
4 tandem, it is transmitted either over the company's proprietary microwave
5 transmission facilities, a leased T-1, or a combination of both to the end office
6 (cell site) that will serve the mobile called party. From that end office, the call is
7 transmitted by radio frequency to the end user's mobile location.

8 Q. Please explain the technical characteristics of the networks, starting with the
9 tandem switches.

10 A. Sprint's and Wireless One's tandem switches each were manufactured by the
11 same company, Northern Telecom. Sprint uses the Northern Telecom DMS100
12 switches at both its Ft. Myers LATA tandems and Wireless One uses the Northern
13 Telecom DMS250 switch at both of its tandems.

14 Q. Are Sprint's and Wireless One's tandem switches the same?

15 A. Yes. Each has the same hardware pieces. The tandems also are functionally the
16 same in that each switches calls for transmission to the end office serving the
17 called party. The physical, but not the functional, characteristics of the network
18 begin to diverge once the tandem switches the call for transmission to the serving
19 end office.

20 Q. How so?

1 A. As to Sprint's local wireline system, the call is transmitted over a T1 to the end
2 office serving the called party. As to Wireless One's local wireless system, the
3 call is transmitted over Wireless One's leased T1 lines, proprietary microwave
4 facilities, or a combination of both to its end offices. Although the technological
5 means differs where microwave transmission is used, both perform the same
6 function -- the transmission of the call from the tandem to the end office.

7 Q. What function does each carrier's end office perform?

8 A. Each end office performs the same function of actually delivering the call to or
9 receiving the call from the end user. In Sprint's case, this is achieved by a single
10 wireline between the end office and the fixed end user location. In the case of
11 Wireless One, delivery is made by way of a radio signal between the end office
12 and end user's mobile location, as explained later in my testimony.

13 Technologically, Sprint's end offices contain Line Concentrating Modules
14 ("LCMs"), which provide connections to the end office from the end user's fixed
15 location by means of a wireline. Wireless One's end offices contain Line
16 Interface Modules ("LIMs"), which provide connections to the end office from the
17 end user's mobile location by means of radio frequencies.

18 Q. Please explain how these differences affect the operation of the end office,
19 beginning by describing a typical *wireline* call origination and completion
20 process.

1 A. A wireline call originator can only reach one wireline end office by a physical
2 hardline connection. The receiving wireline end office may be able to complete
3 (switch) the connection if the called party is also an end user of that end office; or
4 it may be able to switch the call to another end office within the same flat rate
5 extended service area (EAS area) without the use of a wireless tandem.

6 Only when a call cannot be completed through a direct connection within
7 the same end office or same flat rate calling area, will a call originated by a Sprint
8 customer require tandem switching. When the call requires tandem switching, it
9 is transmitted from a dedicated single line facility to the "home" end office (*i.e.*,
10 calling party's end office), to Sprint's tandem over a T1 line, from the tandem
11 over a T1 line to the terminating end office and, ultimately, by dedicated single
12 line facility to the called party.

13 Q. Now, describe a typical *wireless* call origination and completion process.

14 A. A wireless call originator reaches a wireless end office by best-available radio
15 frequency ("RF"), instead of a wireline. The end office is not dedicated to the end
16 user because of the mobile nature of the service and because the RF searches for
17 the strongest available radio signal, which may come from among several end
18 offices capable of serving a mobile customer at a give time. Thus, instead of
19 some calls being originated and terminated at the same end office, as in the
20 wireline end office, the central processor may find it appropriate to migrate the
21 connection and serving frequency between end offices during the call. For this

1 reason, our wireless tandems are designed and capable of doing more processing
2 and switching than Sprint's tandems.

3 Q. Why is this so?

4 A. Again, this is because of the technological distinctions between the two services.
5 A central location is needed for wireless service to accommodate end users who
6 necessarily will be traveling between end office locations (*i.e.*, from cell site to
7 cell site) and thus changing frequencies from cell site to cell site. If messaging
8 information were housed only in one end office, as with wireline service, the
9 wireless carrier would not be able to serve its mobile caller traveling to the next
10 cell site.

11 Let me elaborate by explaining how a call is received in a wireless
12 environment. When a mobile unit is turned on by the end user, it scans the
13 strongest available RF signal in that vicinity. If there are no available channels at
14 the closest cell (and that is the strongest signal sender) the central processor will
15 automatically shift the cell delivery to the next strongest signal sending end office.
16 Once it locks onto a specific cell site's transmitter, the mobile unit will then
17 transmit its identity to that cell site. The cell site sends a digital message via data
18 link to the tandem switch with which it is connected. This process is called
19 registration. This allows the switch to know where to send a call once it receives
20 a call request from another mobile unit or a landline caller.

1 Consider if I were to originate a land-to-mobile call through Sprint's local
2 end office to Sprint's Fort Myers tandem and then to Wireless One's South Fort
3 Myers tandem. The South Fort Myers tandem switch would identify the last
4 registration of the mobile unit in order to direct this call. It would identify which
5 wireless tandem switch was last to receive the mobile unit's registration and route
6 the call to that particular wireless tandem switch. The tandem switch would
7 receive the call and would identify the end office to which the mobile unit last
8 registered. The central processor then instructs all end offices in the vicinity of
9 the last registration to send back an acknowledgment of its ability to serve the
10 mobile unit at this time. Based on an automatic mobile response, the central
11 processor authorizes the connection to the end office with the best available voice
12 RF path, and that end office completes the connection to the mobile called party.

13 Obviously, this registration function could not be handled by the
14 individual end offices because they would not have the capability to ascertain to
15 which of the various cell sites the mobile end user was last registered and the
16 cellular system could not operate.

17 It is important that all of the end offices are dependent on a central
18 location for registration for other reasons. Consider if the mobile unit that is
19 registered on a particular end office is located in a building and is carried by a
20 person and passes through RF obstructions such as metal studs or appliances. The
21 mobile unit may redefine its standby channel to another end office at any given

1 second without reregistering. If end office registrations were not interdependent,
2 an automatic shift to a stronger RF channel from another end office could not
3 occur. It is for this reason that the wireless carrier must have a control data base
4 processor at the tandem.

5 Just as important, it is impossible for the wireless tandem switch to send a
6 call to an end user without the use of end office facilities. The wireless end office
7 is required to originate the call, terminate the call, and to provide the interface to
8 the mobile unit for call requirements and features.

9 The Wireless One end offices provide the same functionality as the Sprint
10 end office provides to the end user; however, due to the added complexity of RF
11 assignments as explained above, it would be impossible to engineer a working
12 cellular system without having the database information at a central location. In
13 brief, both the wireless and wireline tandems provide a means to direct the call to
14 the specific end office and both the wireless and wireline end offices provide the
15 only means to provide these calls to the end user.

16 Q. Please summarize the process of how a Sprint customer's call is terminated on
17 your network and how a Wireless One customer's call is terminated on Sprint's
18 network.

19 A. The process is the same. A Sprint customer's call is delivered by wireline to the
20 LCM at the end office serving the calling party. From there, Sprint transmits it to
21 its tandem which switches the call and forwards it to a Wireless One network

1 interconnection, as detailed in Mr. Heaton's testimony. From the point of
2 interconnection, Wireless One transmits the call to either of its two tandems, from
3 where it is transmitted over the proprietary microwave network, leased T1s, or a
4 combination of both to the end office serving the called party. At the end office, it
5 passes through LIM for radio frequency delivery to the called party.

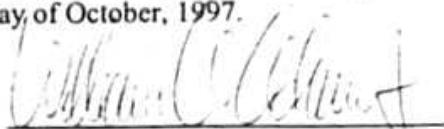
6 Conversely, a Wireless One mobile customer's call is delivered by radio
7 frequency to the end office where it connects via the LIM for transmission by the
8 proprietary microwave system, leased T1, or a combination of both to the tandem
9 office where it is switched and forwarded to a point of interconnection with
10 Sprint. Sprint then transmits the call through an end office LCM to the called
11 party's fixed location using T1 connection from its tandem to the customer's end
12 office, if Wireless One was unable to deliver directly to the end office.

13 Q. Does this conclude your testimony.

14 A. Yes, except that I would like to summarize that Sprint's and Wireless One's local
15 networks contain the same three components: (1) tandem switches, (2)
16 transmission facilities and (3) end offices. Although the networks by necessity
17 have some physical differences, since Sprint is a wireline local service provider
18 and Wireless One is a wireless local service provider, the networks provide the
19 same, or equivalent, transport and termination functions.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing testimony was served upon the following parties by overnight courier, on this 7th day of October, 1997.



William A. Adams, Esq.

Charles J. Rehwinkel, Esq.
Sprint Florida, Inc.
1313 Blair Stone Road
MC FLTLHO0107
Tallahassee, Florida 32301

Beth Culpepper, Esq.
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

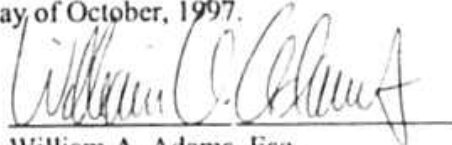
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Testimony of John Meyer
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William A. Adams, Esq.

Charles J. Rehwinkel, Esq.
Sprint Florida, Inc.
1313 Blair Stone Road
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Tallahassee, Florida 32301

Beth Culpepper, Esq.
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

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