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VIA FEDERAL EXPRESS

Ms. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

> Re: Wireless One Network's Petition for Arbitration with Sprint Florida Docket No. 971194-TP

Dear Ms. Bayo:

Please find enclosed for filing the original and fifteen copies of the following documents

•Public Prefiled Rebuttal Testimony of Francis J. Heaton 1113 -97

•Prefiled Rebuttal Testimony of John Meyer 11114-97

Also enclosed, pursuant to Rule 25-22.028, Florida Administrative Code, is a doublesided, high-density diskette containing the Prefiled Rebuttal Testimony of John Meyer. This document was formatted as WordPerfect for Windows under the Windows 95 operating system The Public Prefiled Rebuttal Testimony of Francis J. Heaton is not available in an electronic format.

Enclosed are an additional two copies of each of these filings. Please date stamp and return these two copies in the enclosed self-addressed envelope.

Very truly yours,

2 Enclosures

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ACK

James A. Dwyer (via Federal Express) Frank Heaton (via Federal Express)

DOCUMENT NUMBER-DATE

DOCUMENT NUMBER-DATE

FPSC-RECORDS/REPORTING

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Cleveland Dallas Washington, D.C.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the the Prefiled Rebuttal Testimony of John Meyer and Public Prefiled Rebuttal Testimony of Francis J. Heaton was served upon the following parties by overnight courier, on this 28th 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. William Cox, Esq. Division of Legal Services Florida Public Service Commission 2540 Shumard Oak Blv4. Tallahassee, Florida 32399-0850

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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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

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PREFILED REBUTTAL TESTIMONY OF JOHN MEYER

Wireless One Network, L.P. Exhibit 2.0R

October 28, 1997

DOCUMENT NUMBER-DATE 11140CT 285 FPSC-RECORDS/REPORTING

1	Q.	Please state your name and business address?
2	Α.	John Meyer, 2100 Electronic Lane, Ft. Myers, Florida, 33919.
3	Q.	Are you the same John Meyer that submitted direct testimony in this case on
4		October 7, 1997?
5	Α.	Yes.
6	Q.	What is the purpose of providing this portion of testimony in this proceeding?
7	Α.	This testimony responds to the direct testimony of F. Ben Poag filed by Sprint in
8		this proceeding on October 7, 1997 that addresses the network components of
9		Wireless One's and Sprint's networks. This testimony also responds to Mr.
10		Poag's testimony when deposed by Wireless One on October 20, 1997, a copy of
11		which is attached to Frank Heaton's rebuttal testimony as Wireless One exhibit
12		FJH 1.9.
13	Q.	Before specifically addressing Mr. Poag's testimony, can you comment on
14		Sprint's statements in its Response filed with the Commission on October 7, 1997
15		that Wireless One has admitted that it does not perform tandem switching and
16		transport (Response, at 8-9).
17	Α.	Yes, I have read that statement in Sprint's Response. Wireless One has never
18		admitted that it does not perform tandem switching and transport, because to do
19		so would be untrue.

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1	Q.	Mr. Poag at pages 12 through 14 of his direct testimony states that Wireless One's
2		CMRS network does not provide the equivalent functions of a tandem/end office
3		hierarchy. Do you agree?
4	Α.	Absolutely not! As I testified previously, each network contains the same three
5		components: (1) tandem switches, (2) transmission facilities and (3) end offices.
6	Q.	Do you agree with Mr. Poag's assertion that Wireless One's comparison of its
7		network with Sprint's on these bases is an "oversimplification." (Deposition, at
8		17, 18, 22.)
9	Α.	No. By his assertions, Mr. Poag is attempting to confuse the equivalent
10		functionality of the two networks' components with discussions of auxiliary
11		equipment used by Sprint (e.g., subscriber line carrier and cross boxes, discussed
12		later) which is unnecessary to complete a call on its network. In fact, Mr. Poag's
13		last engineering assignment pre-dated operational cellular networks, and it is he
14		who oversimplifies the operation and design of Wireless One's network.
15		For example, Mr. Poag suggests that Wireless One's cell sites do not "look
16		like" end offices because they have no call processor, switching bus with time
17		slots and memory, billing and recording capabilities. (Deposition, at 27.) What
18		Mr. Poag has just described is any small controller terminal used for stand-alone
19		paging and stand-alone two-way communications. This would allow the paging
20		companies, SMR companies, the radio common carriers, and most any other
21		telephone interconnect equipment company with which Sprint is connected to be

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1		identified as having end offices. Such a system provides minimum translations
2		ability and usually is a stand-alone site. It would not require a massive overlay of
3		"high tech" networking systems similar to Sprint's and Wireless One's, nor does
4		it define the tremendous routing diversity ability that the Sprint and Wireless One
5		networks provide.
6		Wireless One's network is extremely complex, as is Sprint's network. We
7		both use fiber in our networks and have the ability for complex routing and
ε		diversity routing for 100% recovery (for our systems that provide this "high tech"
9		redundancy). The complexity of both networks becomes even more confused
10		with the addition of auxiliary equipment to serve rapidly growing wireless and
11		wireline customer bases. However, detailing all of these components only would
12		serve to confuse the issue and mislead the Commission as to whether these
13		equally complex networks are functionally equivalent. Wireless One deliberately
14		has chosen not to inject such detail in this proceeding for this reason.
15	Q.	Then let's first consider each of the three essential network components that make
16		the networks similar. Does Mr. Poag dispute that Wireless One's network
17		contains transmission facilities?
18	Α.	No. Mr. Poag readily admitted when asked during his deposition that Wireless
19		One provides transmission facilities. (Deposition, at 16, 28.)
20	Q.	What about switching facilities?

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1	Α.	Mr. Poag also admits that Wireless One's DMS250 in South Ft. Myers performs
2		switching functions. (Deposition, at 28.)
3	Q.	Do you recall your pre-filed direct testimony when, in comparing Sprint's and
4		Wireless One's tandem switches, you stated that Sprint maintained a DMS100 at
5		its Ft. Myers' location?
6	Α.	Yes, I do; however, that information was based upon incorrect data that I had been
7		provided. Mr. Poag corrected my testimony during his deposition (Deposition, at
8		18) by indicating that Sprint actually maintains a DMS200 tandem switch at its Ft.
9		Myers location, which resembles Wireless One's DMS250 more closely than the
10		DMS100.
11	Q.	Please elaborate.
12	Α.	Like the DMS 100, Sprint's DMS 200 is manufactured by Northern Telecom, as
1?		is Wireless One's DMS250. The DMS200 and DMS250 each is referred to as
14		"access and toll" tandems.
15	Q.	Why are they called "access and toll" tandems?
16	Α.	Because their main purpose is to provide trunk to trunk interconnection to end
17		offices, interexchange carriers' points of presence, and other carriers' tandem and
18		end offices. Wireless One's DMS250 makes these interconnections as detailed
19		further in Mr. Heaton's testimony. In fact, we have had SS7 connectivity since
20		1992 with A-side cellular carriers throughout North America. This is what
21		enables us to validate another carrier's customer's intended use of our system and

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1		vice versa. A cellular customer only needs to turn on his phone in another
2		carrier's market and the signaling system immediately will authorize his use of
3		other carriers' systems. The SS7 networking which connects over 400 cellular
4		tandems to provide re-routing of calls to any of these cellular tandems (i.e.,
5		"follow me roaming") is wholly independent of any Sprint interconnection.
6		Clearly, Wireless One's DMS250 is a tandem.
7	Q.	Obviously, then, you don't agree with Mr. Poag's assertion that Wireless One's
8		DMS250 "provides basically end office switching functionality." (Deposition, at
9		16.)
10	Α.	I could not disagree more. Wireless One's DMS250, like Sprint's DMS200, are
11		incapable of providing line termination to the end user on their own. It is for this
12		reason that Wireless One and Sprint each co-locate end offices with their tandem
13		locations - to make the line terminations to the end users that these tandems
14		cannot.
15		In fact, Mr. Poag's argument that the DMS250 provides end office
16		functionality is contrived to support the contention that Wireless One's end
17		offices are not functionally equivalent to Sprint's end offices. The trap that Mr.
18		Poag falls into is that, if Wireless One's end offices are not functionally
19		equivalent to Sprint's end offices, the calls to the DMS250 must be terminated
20		somehow. Thus, he makes the unsupportable claim that the DMS250 is
21		terminating the calls. Even Mr. Poag backed away from this position, admitting

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1		that Sprint's real issue as to network functionality was limited to whether
2		Wireless One's end offices were functionally equivalent to Sprint's end offices.
3		(Deposition, at 28.) Of course they are, because the main function of each is to
4		provide line termination to the end user, which cannot be done by other means.
5	Q.	Before we discuss end office functionality in greater detail, do you disagree with
6		any other of Mr. Poag's statements concerning Wireless One's tandem switch?
7	Α.	Yes. In explaining the functional equivalency of Sprint's and Wireless One's
8		tandem switches in my direct testimony, I stated that each contained the same
9		hardware pieces. In his only attempt to distinguish the tandems, Mr. Poag states
10		that the DMS250 could not provide operator services. In fact, both the DMS250
11		and DMS200 are capable of providing operator services and a multitude of other
12		features.
13		Simply put, each tandem contains the same hardware pieces and performs
14		the same function of switching calls for transmission to the end office. They are
15		functionally equivalent.
16	Q.	You've also explained that Wireless One's and Sprint's end offices are
17		functionally equivalent because each provides line termination to the end user,
18		which cannot be done by other means. On what basis, then, does Mr. Poag
19		conclude that Wireless One's end offices are not functionally equivalent to
20		Sprint's?

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1	Α.	Essentially, Mr. Poag relies on three arguments: (1) that Wireless One's end
2		offices lack a call processor, (2) that Sprint is unable to terminate calls at Wireless
3		One's end offices, and (3) that Wireless One's end offices are more akin to a line
4		concentrator. Each is unfounded.
5	Q.	Please explain.
6	Α.	In my direct testimony filed October 7, 1997, I went to great lengths to
7		demonstrate the technological distinctions between a wireless and wireline
8		network. A wireless network requires that the call processor be placed at a central
9		location (i.e., at the tandem switch), while it may be placed at the individual end
10		offices of a wireline network. These distinctions do not change the fact that the
11		end offices of each network function to terminate calls to their respective end
12		users. Instead, they merely recognize that a different technology must be
13		employed to serve mobile wireless customers than fixed wireline customers.
14		To summarize briefly, a central call processor is needed for wireless
15		service to accommodate end users who necessarily will be traveling between end
16		office locations (i.e., from cell site to cell site) and thus changing frequencies from
17		cell site to cell site. If messaging information were housed only in one end office,
18		as with wireline service, the wireless carrier would not be able to serve its mobile
19		caller traveling to the next cell site.
20		Alternatively, the user could be in a fixed location capable of being served
21		by multiple end offices. If the end office which customarily could provide a line

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1	interface module to the cellular customer is out of service or all of its lines are in
2	use, the customer would be unable to place or receive calls at that time without the
3	central processor selecting the next best available end office.
4	As I explained previously, when a mobile unit is turned on by the end
5	user, it scans the strongest available radio frequency ("RF") signal in that vicinity.
6	If there are no available channels at the closest cell (and that is the strongest
7	signal sender) the central processor will automatically shift the cell delivery to the
8	next strongest signal sending end office. Once it locks onto a specific cell site's
9	transmitter, the mobile unit will then transmit its identity to that cell site. The cell
10	site sends a digital message via data link to the central processor with which it is
11	connected. This process is called registration. This allows the network to know
12	where to send a call once it receives a call request from another mobile unit or a
13	landline caller. This registration function could not be handled by the individual
14	end offices because they would not have the capability to ascertain to which of the
15	various cell sites the mobile end user was last registered and the cellular system
16	could not operate.
17	The Wireless One end offices provide the same functionality as the Sprint
18	end office provides to the end user; however, due to the added complexity of RF
19	assignments as explained above, it would be impossible to engineer a working
20	cellular system without having the call processing information at a central

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21 location. It is for this same reason that, upon acquiring Palmer Wireless, Wireless

1		One plans to decommission the North Ft. Myers tandem office - to provide a
2		single central call processing network to eliminate border issues which could
3		confuse the "best available server." The placement of the call processing
4		functions at the South Ft. Myers tandem makes each Lee County end office no
5		less a switch, but just relocates the call processor to accommodate the unique
6		needs of a wireless network.
7		In brief, both the wireless and wireline tandems provide a means to direct
8		the call to the specific end office and both the wireless and wireline end offices
9		provide the only means to provide these calls to the end user. The fact that
10		Sprint's end offices provide independent call processing is immaterial.
11	Q.	Do you agree with Mr. Poag's statement that Wireless One's end offices are not
12		functionally equivalent to Sprint's because Sprint is unable to interconnect at
13		Wireless One's end office?
14	Α.	Absolutely not! Sprint could interconnect at Wireless One's end office so long as
15		it is capable of providing the SS7 signaling necessary for call origination and
16		termination.
17		To connect a trunk from a Sprint end office to a Wireless One end office, a
18		voice path (or trunk termination) and a SS7 end-to-end signaling connection is
19		needed. Sprint is able to provide the voice path via their end offices; however,
20		Sprint has not equipped its Ft. Myers LATA end offices to deliver SS7 signaling,
21		including Automatic Number Identification ("ANI"). Instead, Sprint's end offices

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1		must obtain their SS7 signaling capabilities from Sprint's Altamonte Springs and
2		Winter Park STP offices, through a series of routings through Sprint's Ft. Myers'
3		LATA tandem offices.
4		Sprint would have this Commission believe that it is Wireless One's
5		dependence on the call processor at its tandems that prevents this end office-to-
6		end office interconnection; however, Wireless One's end-office dependence on
7		call processing functions is very analogous to Sprint's dependence on Altamonte
8		Springs and Winter Park for SS7 signaling. Without trunk signaling, the call is
9		incapable of functioning. If anything, Sprint's analogies point to the functional
10		equivalencies of the two networks, rather than their distinctions.
11	Q.	Do you agree with Mr. Poag's statement that Wireless One's cell site is more
12		akin to a subscriber line carrier (i.e., a line concentrator) than an end office?
13		(Deposition, at 102, 103.)
14	Α.	No! Mr. Poag's attempt to downplay the essential function of Wireless One's end
15		office, by suggesting that it is the equivalent of a line concentrator is grossly
16	3	misleading. Indeed, even Mr. Poag had to admit during his deposition that, while
17		a wireline network can operate without a line concentrator (or line carrier), a
18		cellular network cannot operate without its end office. (Deposition at 110-111.)
19		Similarly, cross boxes merely are a point for termination for active and
20		non-active pairs of wires providing a reserve of pairs for future use to the final
21		destination, for example a neighborhood subdivision. Cross boxes are wholly

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1		non-essential for the operation of a wireline end office, and there is no
2		requirement that that a cross box be part of an active connection.
з	Q.	Please clarify the function of a line concentrator on Sprint's network.
	A.	The purpose of a line concentrator on Sprint's network is to enable it to provide
4	л.	
5		service to a local community without 100% dedicated circuitry back to the serving
6		end office. This "point-to-point" connection is functionally the same as the
7		"remote transponders" that Wireless One uses in its wireless network as a means
8		of serving customers beyond the reliable coverage area of the primary antennae
9		system of its serving end office. Both mechanisms are an extension of the end
10		office.
11	Q.	How do these devices connect to Sprint's and Wireless One's end offices?
12	Α.	Sprint's interconnection to these outside service extension devices relies on the
13		Nortel LCM (Line Concentrator Module) at the end office; whereas the Wireless
14		One interconnection to such devices relies on the Nortel LIM (Line Interface
15		Module) at the end office, as described in my direct testimony filed October 7,
16		1997. The end offices, which provide for multi-point connectivity, are required
17		for line termination to the end user, with or without this auxiliary equipment.
18	Q.	Would you please summarize your testimony.
19	Α.	Wireless One's wireless network is functionally equivalent to Sprint's wireline
20		network. The differences between the two are functions of technology only to be
21		able to serve distinctively different customers (mobile versus fixed). Mr. Poag

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1		readily admits that the networks are equivalent in their transmission and tandem
2		switching functions, but refuses to concede that Wireless One's end offices are
3		functionally equivalent to Sprint's. My testimony in this proceeding demonstrates
4		their functional equivalency in that each are necessary to provide line termination
5		to the end user.
6	Q.	Does this conclude your testimony?
7	Α.	Ycs, it does.
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Charles J. Rehwinkel tararal Mission

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October 28, 1997

Ms. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Rebuttal Testimony in Docket No. 971194-TP

Dear Ms. Bayo:

Enclosed for filing in this docket are:

- The original and fifteen (15) copies of the Rebuttal Testimony of F. Ben Poag. - 11135-97
- The original and fifteen (15) copies of the Rebuttal Testimony of Sandra A. Khazraee. /// 26-77

Please return a stamped copy of this letter for our files. A copy is provided for this purpose. I can be reached at 850/847-0244.

Sincerely,

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ACK Charles J. Rehwinkel AFA Beth Culpepper, Esq. cc: APP Will Cox, Esq. CAF Bill Adams, Esq. CTR EAG Ò LEG RECEIVED & FILED UR RCH SEC WAS _ DTH ___