

BEFORE THE WASHINGTON UTILITIES AND TRANSPORT COMMISSION

In the Matter of Petition by)	
AT&T Wireless Services, Inc. for)	
Arbitration Pursuant to Section)	
252(b) of the Telecommunications)	DOCKET No. UT-960381
Act of 1996 of the Rates, Terms, and)	
Conditions of Interconnection with)	
U S WEST Communications, Inc.)	

REBUTTAL TESTIMONY OF

CRAIG WISEMAN

MAY 15, 1997

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 DIVISION

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1

2 **Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS**
3 **ADDRESS.**

4

5 My name is Craig Wiseman. I am employed by U S WEST Communications Inc.
6 ("U S WEST") as a Member of Technical Staff in the Interconnection Planning
7 Group. My business address 700 W. Mineral Ave., Littleton, CO. 80120

8

9 **Q. HAVE YOU FILED DIRECT TESTIMONY IN THE PROCEEDING?**

10

11 A. Yes.

12

13

PURPOSE OF TESTIMONY

14

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

16

17 A. The purpose of my rebuttal testimony is to address issues raised in direct
18 testimony of Kurt Maass regarding access to poles used by U S WEST. Mr.
19 Maass requests the Commission to develop requirements that entitle AWS to have
20 access to the tops of poles for the placement of CMRS micro-cell devices and also
21 require U S WEST to replace existing poles with taller poles in order to improve
22 signal reception for the micro-cell devices. My rebuttal testimony discusses
23 several network reliability concerns that must be addressed before micro-cell
24 technology can be placed on pole tops. I also point out that while neither the Act
25 nor the FCC Order require that U S WEST replace existing poles to accommodate
26 AWS's request, U S WEST is willing to explore such accommodations and

1 negotiate with AWS for the replacement/construction of additional poles. Of
2 course, U S WEST would expect to recover the total cost of replacement and/or
3 construction from AWS through a one-time non-recurring charge.

4

5 **Q. WHAT IS U S WEST'S POSITION ON AWS'S REQUEST TO PLACE**
6 **MICRO-CELL TECHNOLOGY ON TOP OF UTILITY POLES OWNED**
7 **BY U S WEST?**

8

9 A. U S WEST had no knowledge of this proposal prior to reading the direct
10 testimony filed by AWS. However, after examining the proposal and the
11 potential impacts on network reliability, U S WEST asks the Commission not to
12 adopt the AWS proposal until the network reliability issues have been resolved.

13

14 **Q. HAS U S WEST PROVIDED THIS TYPE OF ARRANGEMENT TO**
15 **OTHER WIRELESS OR WIRELINE PROVIDERS?**

16

17 A. No. As Mr. Maass states on page 37, line 8 through line 10 of his direct
18 testimony, that AWS "will be using poles and other utility facilities in ways
19 perhaps not contemplated by traditional landline providers."

20

21

22 **Q. WHAT IS YOUR UNDERSTANDING OF THE AWS MICRO-CELL**
23 **PROPOSAL?**

24

25 A. The AWS micro-cell proposal would require that miniature cellular antennas be
26 installed on the top of utility poles. The antennas would be connected to a control

1 cabinet via a facility, i.e. coaxial cable, that would descend from the pole top to a
2 micro -cell control box at or near ground level. A second facility would exit the
3 control box and ascend the pole to the U S WEST cable facilities where it would
4 be connected to a copper line inside the U S WEST cable. The cooper line would
5 connect the micro-cell to the AWS mobile switching center (MSC).

6

7 **Q. WHAT ARE THE NETWORK RELIABILITY CONCERNS RELATED**
8 **TO THIS MICRO-CELL PROPOSAL?**

9

10 A. Most poles used by U S WEST in Washington are joint use poles shared by
11 U S WEST and other utilities such as cable television and power companies. The
12 power company 's high voltage facilities are usually located at near the top of the
13 pole. For safety reasons, a 40 inch area of separation is provided between the high
14 voltage lines and the other facilities on the pole. The micro-cell proposal requires
15 that a facility be run from the top of the pole down to a micro-cell control box.
16 Another facility will exit the control box and connect to the U S WEST copper
17 telephone cable where it will be connected to telephone lines. If the antenna or
18 the facility that connects it to the control box should come into contact with the
19 high voltage lines, they will act a conduit that could feed high voltage electricity
20 directly into the U S WEST cable. High voltage in a telephone cable can cause
21 serious injury to end users, telephone technicians as well as severely damage the
22 telephone facilities and switching equipment.

23

24 **Q. WHAT DAMAGE MIGHT OCCUR BY CONNECTING THE POLE TOP**
25 **MICRO-CELLS TO THE TELEPHONE CABLES?**

26

1 A. The micro-cell is a miniature cellular antenna that collects high frequency radio
2 waves from wireless phones. Antennas also attract lightening. If lightening were
3 to strike the micro-cell, the high voltage surge could be introduced into the
4 U S WEST telephone cable, exposing end users and telephone technicians to
5 serious injury and severely damaging the telephone facilities and switching
6 equipment.

7

8 **Q. ARE THERE ANY ISSUES THAT AFFECT U S WEST'S ABILITY TO**
9 **PROVIDE INTERCONNECTION OF THE MICRO-CELL TO THE**
10 **U S WEST TELEPHONE CABLE?**

11

12 A. Yes. In most cases the cable attached to poles is distribution cable. Distribution
13 cable is usually copper cable that is designed for local loops, not T-1 private line
14 transmission facilities. Therefore, the facilities used to transport the micro-cell
15 signals would have to be redesigned to T-1 transmission standards.

16

17 **Q. WHAT IS U S WEST'S RECOMMENDATION REGARDING THE AWS**
18 **POLE TOP MICRO-CELL PROPOSAL?**

19

20 A. Due to the concerns for public safety and the negative affects that the micro-cell
21 proposal may have on network reliability and customer service, U S WEST
22 recommends that the Commission not require U S WEST to provide access to the
23 top of poles for the placement of micro-cells. Instead, U S WEST will evaluate
24 requests on a case by case basis through the bona fide request process. This will
25 allow U S WEST to coordinate the AWS order for a DSI/T1 facility with the

1 order to place the micro-cell on a specific pole, conduct a site inspection and then
2 perform a feasibility study.

3
4 **Q. CAN U S WEST PROVIDE ACCESS TO ALL OF THE POLES USED BY**
5 **U S WEST IN WASHINGTON?**

6
7 A. No. U S WEST only owns 57% of the poles used by U S WEST in Washington.
8 U S WEST leases space on the remaining 43% from power companies.

9
10 **Q. WHAT IS THE U S WEST POSITION REGARDING THE AWS**
11 **PROPOSAL THAT U S WEST REPLACE EXISTING POLES WITH**
12 **TALLER POLES TO IMPROVE THE MICRO-CELL SIGNAL**
13 **RECEPTION?**

14
15 A. The Federal Act does not require U S WEST to construct or rearrange facilities
16 for another carrier. Therefore, U S WEST should not be *required* to construct
17 new facilities or replace existing facilities for the sole benefit of its competitors.
18 However, U S WEST and AWS should be free to negotiate, if they so choose, for
19 the rearrangement of existing facilities or the construction/acquisition of
20 additional poles, conduits and rights of way. Thus, U S WEST may, under some
21 conditions, construct or rearrange facilities that would provide pole or conduit
22 space for AWS. Such agreements should be negotiated on a *voluntary* basis.

23
24 **Q. HOW SHOULD THE COSTS INCURRED BY U S WEST TO**
25 **CONSTRUCT, REPLACE OR REARRANGE FACILITIES OR POLES**

1 **TO ACCOMMODATE THE AWS REQUEST FOR ACCESS TO POLES**
2 **BE RECOVERED?**

3

4 A. U S WEST should recover the total costs plus a reasonable profit to construct,
5 replace or rearrange facilities or poles to accommodate the AWS request to access
6 to poles from AWS on a one time non-recurring charge basis.

7

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9

10 A. Yes.

11