

6

Confidential Release

Case Number: 94-1695-TP-ACE

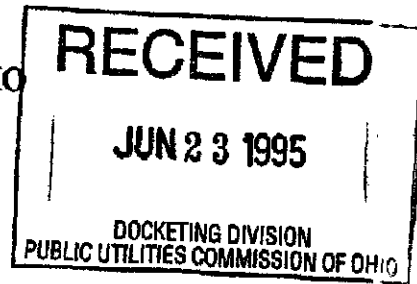
**Date of Confidential Document:
June 23, 1995**

**Today's Date:
August 20, 2009**

**Cincinnati Bell Telephone Co.'s Exhibit 'M' filed
under seal.**

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business.
Technician SM Date Processed AUG 20 2009

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**



**In the Matter of the Application of)
Time Warner Communications of Ohio, L.P.)
and Time Warner AxS for a Certificate)
of Public Convenience and Necessity)
to Provide Direct and Resold Exchange)
Services, Including Local Exchange and)
Dialtone Services)**

Case No. 94-1695-TP-ACE

**CINCINNATI BELL TELEPHONE COMPANY'S EXHIBIT M
FILED UNDER SEAL PURSUANT TO PROTECTIVE ORDER
DO NOT OPEN OR READ WITHOUT AUTHORIZATION**



MEMORANDUM

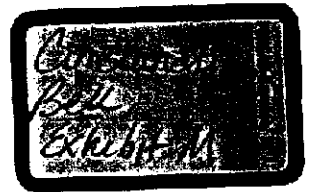
Date: May 9, 1995

To: HFC Telephony Core Team
HFC Telephony Support Team

From: Neil Abramson

CC: Distribution
Colleen Reichert - Northern Telecom
Rochelle Barnett - Northern Telecom
Jacques Fluet - Northern Telecom
Becky Burton - US West BRI

Subject: Northern Telecom Development Status Meeting of 5/4/95



A Development Status meeting with Northern Telecom Inc. (NTI) and Bell Northern Research (BNR) was held on 5/4/95 at the BNR labs, 705 Westech Drive, Norcross, GA. This meeting was held to demonstrate capabilities and assess current status of the NTI Cornerstone Voice Single Family Residence (SFR) trial in Rochester, NY and lab in Denver.

The most important result of the meeting is that NTI was not able to demonstrate manual frequency agility of the system and system was therefore not ready to ship. Current estimated ship date is 5/22 (revised from 5/8), indicating an in service date of 6/28/95 for the Rochester trial. The lab equipment schedule will be established by 5/15.

Topics of Discussion:

- **Test Plan Demonstration** - NTI was able to demonstrate 11 of the 13 Time Warner requested tests (see Attachment 1). Frequency agility (test 9) was not ready and could not be demonstrated (this is manual agility with a primary and back up frequency manually assigned. Automatic frequency agility is scheduled to be available in September for production units). The lack of frequency agility also limited the ability to perform performance monitoring of the RF link (test-13).
- **Powering** - Only twisted pair copper powering had been established for the test. BNR indicated direct coax powering interface would be ready in about a week following our visit. When voltage was reduced to the NIU, the call was dropped at 32.7V, but had started getting noisy around 44V. Restoral voltage was not determined exactly, but is estimated at about 45V. Restoral voltage was not determined because NTI still had to manually remarshal the NIU and reset the modem for every attempt. Automatic marshaling of the NIU in this situation was estimated to require about 1 week from time of the visit.

- *Bit Error Rate* - Special software and cards had to be loaded to test the BER of the system. The basic NIU will not have this capability. A derived error rate is calculated from parity errors and CRC errors, which could then be extrapolated to errored seconds and BER. The "enhanced NIU" being planned may be capable of providing true BER through installation of a special card/software
- *Revised Schedule* - Due to the crucial minimum requirement of manual frequency agility, drop powering capability and automatic remarshaling of the NIU after voltage drop, NTI and TW mutually agreed to reschedule the initial equipment shipment date from 5/8 to 5/22. This initial shipment will consist of 1 HDT and 2 NIU to Rochester. Following agreement on the initial shipment, NTI proposed a plan to ship 4 additional NIU and all lab equipment the week of 6/26. TW countered with a request for 2 NIU for Rochester the week of 6/12, lab equipment the week of 6/12, then 2 more NIU for Rochester the week of 6/26. In either case, 6 NIU for Rochester would be shipped every week after 6/26 until the full contingent of 48 NIU had been met. NTI agreed to evaluate the TW request in terms of their equipment capabilities and respond with final availabilities the week of 5/8. See Attachment 2 for outline of proposals. Attachment 3 provides current Gantt chart of Rochester field trial schedule. *The Time Warner In-Service Test (TWIST) was shortened from the usual 10 days to 7 days to keep the trial start date in June, 1995.* Schedule for lab has not been determined and will be published when determined.

Summary of Rochester trial milestones:

Equipment Ship - 5/22 (1 HDT, 2 NIU)
 Install - 5/25 to 6/8
 Testing - 6/9 to 6/27
 Cutover - 6/28

Action Items :

1. Drop powering interface to be completed prior to ship 5/22. NTI/BNR
2. Automatic remarshaling of NIU following voltage drop out prior to ship 5/22. NTI/BNR
3. Manual frequency agility available prior to ship 5/22. NTI/BNR
4. Determine remaining ship dates for lab equipment and 4 NIUs to Rochester by 5/12. NTI/BNR
5. Preinstall cable, wiring, and modules in lab prior to equipment ship when dates established. Jacques Fluet
6. Establish follow up meeting in Denver to discuss following topics:
 - Migration/deployment strategy for multiple HDTs
 - RF concentration scenarios
 - BER in the HFC environment
 Neil Abramson/Colleen Reichert

Refer any questions regarding these meeting minutes to me at 303-799-3310. Fax number is 303-649-9749.

ATTENDEES

Time Warner

Dan Engleman	303-799-3302
Jim Haag	303-799-3320
Jim Conlisk	303-799-3305
Neil Abramson	303-799-3310

Northern Telecom/BNR

Rochelle Barnett	404-661-5777
Colleen Reichert	303-850-5685
Peter Murphy	404-661-5850
Jacques Fluet	514-956-3545
Quon Chow	404-246-2510

ATTACHMENTS

T-W Cornerstone Test Plan



Test Case	Date / Location	Test Line		Prime
		#	#	
1. Basic POTS call through • Dial Tone • Ringing • Ring Trip	4/20 BNR Atlanta	1 1 2	2 3 3	L. Lee, C. Ansley & S. Bank
2. Voice Mail/Answering Machine		1	2	L. Lee, C. Ansley & S. Bank
3. Call Waiting		1	2	L. Lee, C. Ansley & S. Bank
4. 3-Way Calling		1,2	3	L. Lee, C. Ansley & S. Bank
5. Caller ID		1	2	L. Lee, C. Ansley & S. Bank
6. Analog Modem 9.6 kb/s		1	2	L. Lee, C. Ansley & S. Bank
7. TDDY (Hearing Impair)		1	2	L. Lee, C. Ansley & S. Bank
8. User Interface • Provisioning Menu • Alarm Reporting	4/20 BNR Atlanta			W. Carter
9. Frequency Agility • Dynamic re-assignment of upstream carriers under noisy environment	5/1-5 BNR Atlanta	1	3	C. Lee & [redacted]
10. BER in HFC environment	5/1-5 BNR Atlanta	1	3	[redacted] & M. Bugajski
11. Spectral Analysis of Modem Output • Downstream • Upstream	5/1-5 BNR Atlanta	1	3	[redacted] & M. Bugajski
12. Power Supply Variation to WB • Good ✓ • Down Call @ 32.7V • Service Rejected 45V or below	5/1-5 BNR Atlanta	1	3	M. Walls & L. Lee
13. Performance Monitoring of RF Link • Parity error • CRC • Signal quality	5/1-5	1	3	[redacted]