

Exhibit 1**Objectives Sought To Be Accomplished**

The mobile data market is expected to grow rapidly over the next decade as wireless penetration and demand for Internet access and other data services continue to grow. This forecasted growth may be inhibited, however, by the limited speed and throughput of existing cellular and mobile data systems, which do not enable mobile users to access the Internet with the same level of performance experienced today by wireline users. Radio Router is developing a new wireless mobility data system that will enable cost effective access to the Internet and Intranets at speeds greater than present dial up rates and approaching that of xDSL and cable access technologies. Radio Router is seeking an experimental license in the 700 MHz band to test a prototype of the system and to perform a subsequent system trial.

The objective of the prototype test is to validate the system design concept, functionality, and operation of the equipment. The prototype testing process will also identify issues to be addressed prior to the system trial. The objective of the system trial is to understand the performance of the system under real world conditions, which cannot be effectively understood in a lab setting. These include environment, propagation, frequency reuse, mobility user behavior, traffic mix and system loading.

Proposed Program Of Research And Experimentation

The equipment under test (EUT) consists of an (experimental) system specifically developed to deliver broadband data communications to mobile devices. The system will allow mobile users to access the Internet, corporate intranets, and other services at data rates significantly higher than presently available in existing mobility products. The system will utilize multiple cells and reuse frequencies in a manner similar to cellular telephone networks with a reuse factor of one.

The system prototype to be tested will consist of two base stations, including transmitters and receivers, and up to twenty mobile stations. The prototype system will operate in the 700 MHz band, between 747 MHz to 792 MHz, with a transmitted channel bandwidth of 5 MHz for both the forward link and reverse link using a Frequency Division Duplex (FDD) channel structure. The system is based on an OFDM access approach with a MAC layer optimized for data communications over a wireless channel. The transmitted signal for the prototype will have the following characteristics per line 4, Form 442:

Frequency (MHz)	Maximum RF power output at transmitter terminals	Maximum EIRP from the antenna	Mean or Peak	Emission	Modulating Signal	Necessary Bandwidth
a	b	c	d	e	f	g
DL 747 to 762	30 dBm	33 dBm	Mean	D7D	See below*	5M0
UL 777 to 792	30 dBm	30 dBm	Mean	D7D	See below*	5M0

* The modulating signal consists of a multitone signal where the available bandwidth is divided into multiple tones, where the phase and amplitude of each tone is determined by the information bits and an inverse Fast Fourier Transform (FFT) is performed to obtain the time domain modulating signal.

Initially, the prototype base stations will be located at **Lat: 40 38 45 Lon: 74 38 25**, with all testing to be performed within a one mile radius. No mobile station will be operated beyond this point. The prototype basestations will connect into the office Ethernet LAN, which will have access to the Internet. The mobile terminals will function as modems and interface to laptop computers.

Subsequently, a system trial will occur in New York City, with a coverage area limited to Manhattan below 60th street, with an approximate center point of **Lat: 40 43 15 Lon: 73 59 57**. Although exact base station sites have not been selected at this time, it is anticipated that no more than 20 sites will be deployed, and that the maximum basestation EIRP will be limited to 44 dBm. Several hundred mobile stations may be involved in the system trial. The transmit characteristics of the equipment for the system trial will be the same as the prototype with the exception of frequency of operation and transmit power of the basestations, and are given as follows:

Frequency	Maximum RF power output at transmitter terminals	Maximum EIRP from the antenna	Mean or Peak	Emission	Modulating Signal	Necessary Bandwidth
A	b	c	d	e	f	g
DL 752 to 762	40 dBm	44 dBm	Mean	D7D	See below*	5M0
UL 777 to 787	30 dBm	30 dBm	Mean	D7D	See below*	5M0

* The modulating signal consists of a multitone signal where the available bandwidth is divided into multiple tones, where the phase and amplitude of each tone is determined by the information bits and an inverse Fast Fourier Transform (FFT) is performed to obtain the time domain modulating signal.

An interference analysis has been performed for the frequencies for which we are requesting experimental authorization. The results are detailed in Exhibit 2, and demonstrate that no harmful interference will result to existing TV operators who presently operate in the proposed band of operation.

This system incorporates a new air interface, and, as such, the ability to test will be on an ongoing basis as refinements to the system are made. Radio Router therefore requests a licensing period of five years, with the realization that this time period may be subject to new licensees entering this band as a result of the upcoming 700 MHz auctions, in which case experimental operations might have to cease.

Exhibit 2**Interference Analysis**

An interference analysis was performed in the area of each location for which an experimental license is being requested. The locations of broadcast stations in the area was first investigated, using the information available in the FCC databases, to determine if the proposed test locations are in the service areas for the stations. All stations co-channel are more than 55 miles from the test areas with the exception of channel 66, WFME, which is approximately 45 miles, and Channel 60, W60AI, which is also approximately 45 miles away. Both stations have a relatively low transmit power, however, - 24kW and 45kW respectively - and should not be subject to interference given the limited transmit power of the Radio Router system.

Additionally, and as a further step to avoid the potential for interference, measurements of signal strength were taken for each TV channel in the auction band (channels 60 through 67) using an external antenna mounted to a drive test vehicle. The results are shown in the table below. The measurements were undertaken to determine which channels could be used for the prototype and subsequent system testing. It is Radio Router's understanding that a signal strength of greater than -70 dBm is needed for reliable reception of a NTSC signal. No signals greater than -75 dBm were measured for the requested channels in the test areas. Radio Router is committed to preventing harmful interference resulting from the test systems.

Channel		39	59	60	61	62	63	64	65	
PL F	PL B	No Signal	No Signal	No Signal	No Signal	No Signal	No Signal	-82	No Signal	
		-75	-72	No Signal	No Signal	No Signal	-83	-71	No Signal	
<u>Ave.</u>	<u>Street</u>									
10	66	-82	-67	-67				-77	No Signal	
10	53						-61			
11	40	No Signal	No Signal	-62	-80					
10	19		-81		-85	No Signal	-85	No Signal	No Signal	
World Trade Center		No Signal	-75	-55	-75	No Signal	-70	-85		
FDR	Houston	-67	-76	-82	No Signal	No Signal	No Signal	No Signal		
FDR	23	-52	-82	-68	No Signal	No Signal	-84	No Signal	No Signal	
1	46	-63	-76	-76	No Signal	No Signal	-78	No Signal	No Signal	No
1	65	-69	-85	-83	No Signal	No Signal	-82	No Signal	No Signal	
5	66	No Signal	No Signal	-67	No Signal	No Signal	-83	No Signal	No Signal	No
5	44	-78	-74	-72	No Signal	No Signal	-70	-78	No Signal	

Notes: All measurements in dBm
 PL F = parking lot front
 PL B = parking lot back
 Ave. = Avenue
 Measurements taken during normal business hours