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June 5, 1997

EX PARTE

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

RECEIVED  
JUN - 5 1997  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: PR Docket No. 93-61  
Automatic Vehicle Monitoring Systems

PR Docket No. 89-552  
Amendment of Part 90 to Provide for Use of 220-222 MHz  
Band

GN Docket No. 93-252  
Implementation of Sections 3(n) and 332 of the Act

PP Docket No. 93-253  
Implementation of Section 309(j) of the Act

GN Docket No. 96-228  
Wireless Communications Service

WT Docket No. 97-12/  
Amateur Spread Spectrum

WT Docket No. 96-6  
Commercial Mobile Wireless Service

Dear Mr. Caton:

On Wednesday, June 4, 1997, Gary Green, Chief Operating Officer of Metricom, Inc., Michael Pettus, Director Systems Engineering of Metricom, Inc., and Henry Rivera and I, of this firm, met with Dan Phythyon, Roz Allen, Jonathan Cohen, Elizabeth Lyle, Tom Stanley, Karen Gulick and Steve Weingarten of the Wireless Telecommunication Bureau.

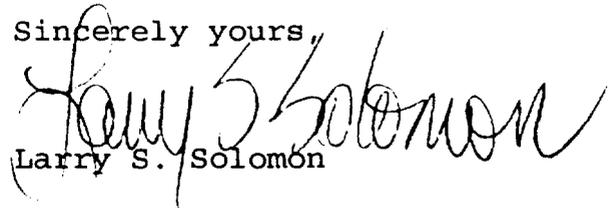
At this meeting, Metricom reiterated its views, as set forth in its various filings in the above referenced proceedings. No new information was presented regarding these proceedings. In addition to addressing these proceedings, Metricom's unlicensed wireless

William F. Caton  
June 5, 1997  
Page 2

technology was discussed and demonstrated. The attached written materials were used in connection with Metricom's presentation at the meeting.

Two copies of this letter, along with the attached materials for each of the above-referenced proceedings, are being submitted to the Secretary pursuant to the provisions of § 1.1206(b)(1) and (2) of the Commission's Rules.

Sincerely yours,



Larry S. Solomon

Attachments

cc: Mr. Dan Phythyon  
Ms. Roz Allen  
Mr. Jonathan Cohen  
Ms. Elizabeth Lyle  
Mr. Tom Stanley  
Ms. Karen Gulick  
Mr. Steve Weingarten

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***Metricom Priorities  
at the  
Wireless Telecommunications  
Bureau***

Gary Green  
Chief Operating Officer

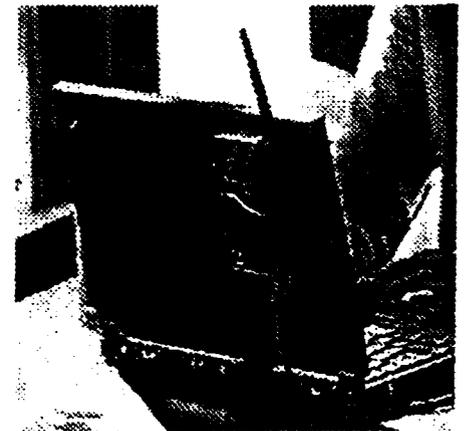
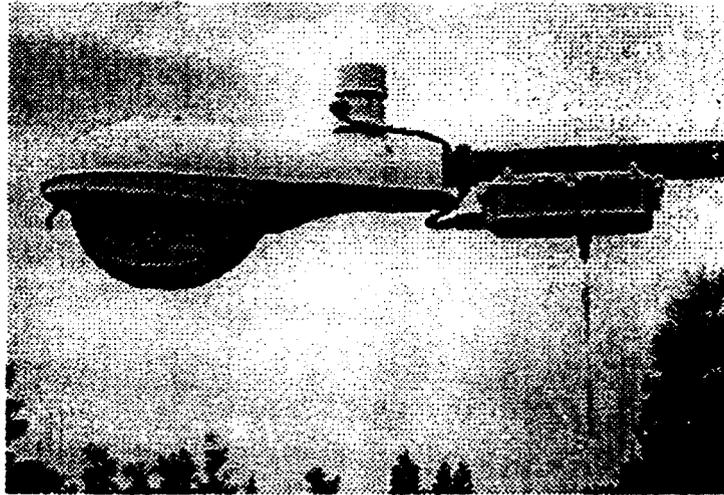
Mike Pettus  
Director, System Engineering

Metricom, Inc.  
June 4, 1997



# *Building a National, Wireless, Data Network for Portable & Fixed Computers*

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# *Metricom Overview*

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- Public company (MCOM), founded in 1985
  - Headquartered in Silicon Valley
  - 240 employees and consultants
- Emerging wireless data communications service provider
- Thousands of radios operating across US
- Uses unlicensed, shared spectrum
- Part 15 Coalition member

# *Two Divisions*

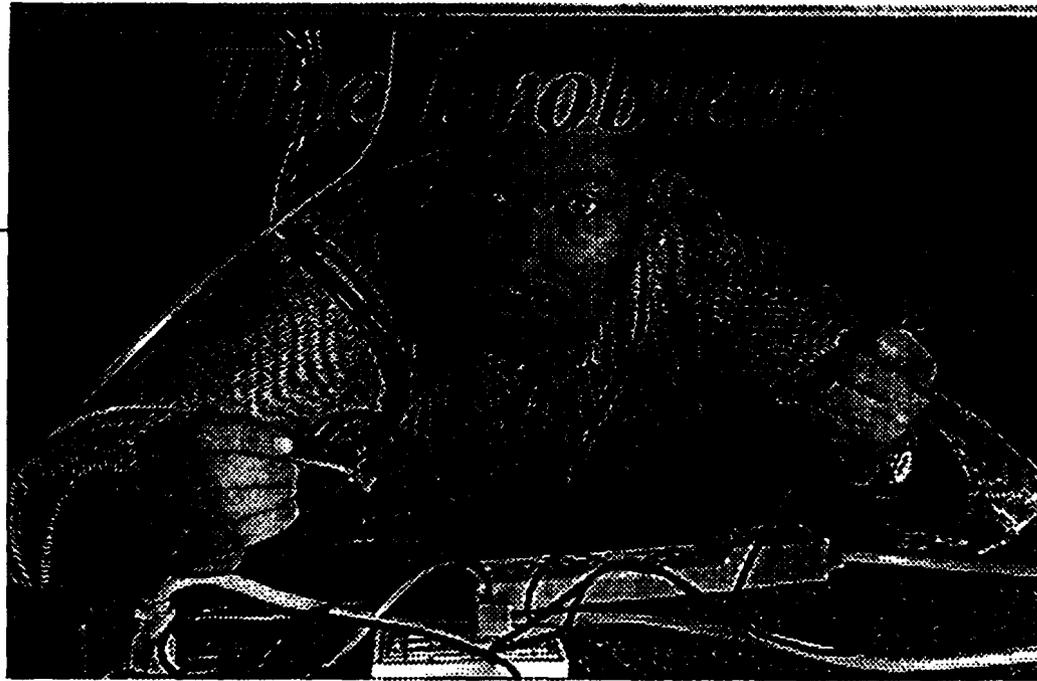
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- RICOCHET DIVISION:

*The wireless modem and Internet service*

- INDUSTRIAL COMMUNICATIONS DIVISION:

*“One Network” solution for industrial customers*



- People require connectivity away from the desk
- Phone lines are an inefficient way to send data
- “Busy signal” is a growing problem
- Most wireless access solutions are expensive, slow and complicated

# *Ricochet: A Unique Solution*

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- Fast, affordable, easy
- Wireless Internet
- Wide area wireless data communications
- Inexpensive, high capacity infrastructure
- Uses unlicensed, shared spectrum

# *Ricochet Facts*

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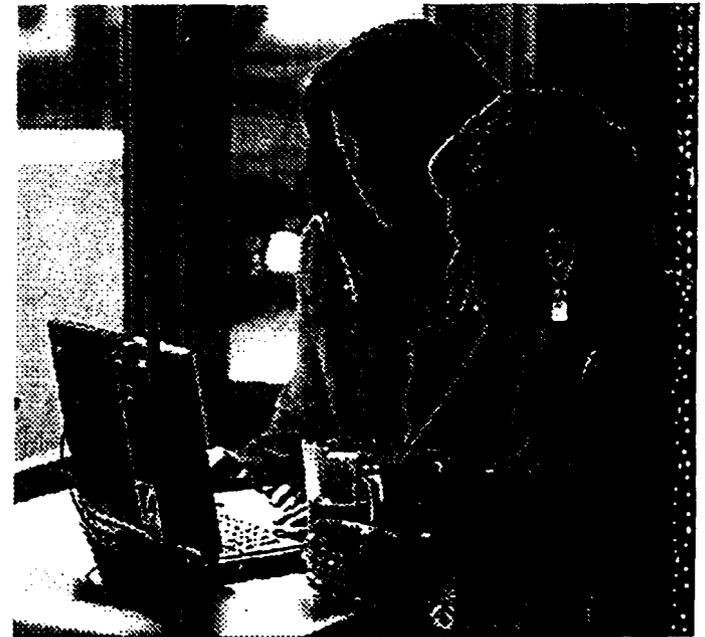
**F**ast: *14.4 to 28.8 kbps to end user*

**A**ffordable: *\$29.95 flat monthly service fee*

**C**ompatible: *Plug & play single-source solution*

**T**ransportable: *Connectivity wherever, whenever*

**S**ecure: *Frequency hopping and optional encryption*



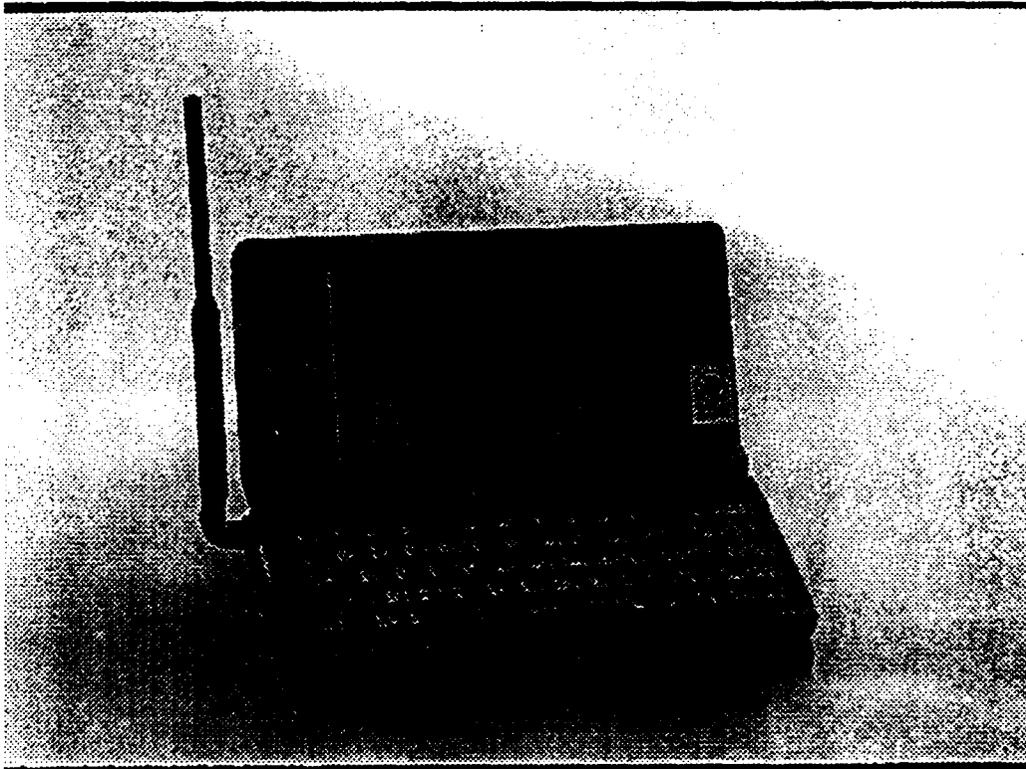
# *Three Target Markets*

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- Education (K-12 and university)
- Corporate
- Metropolitan (individuals)

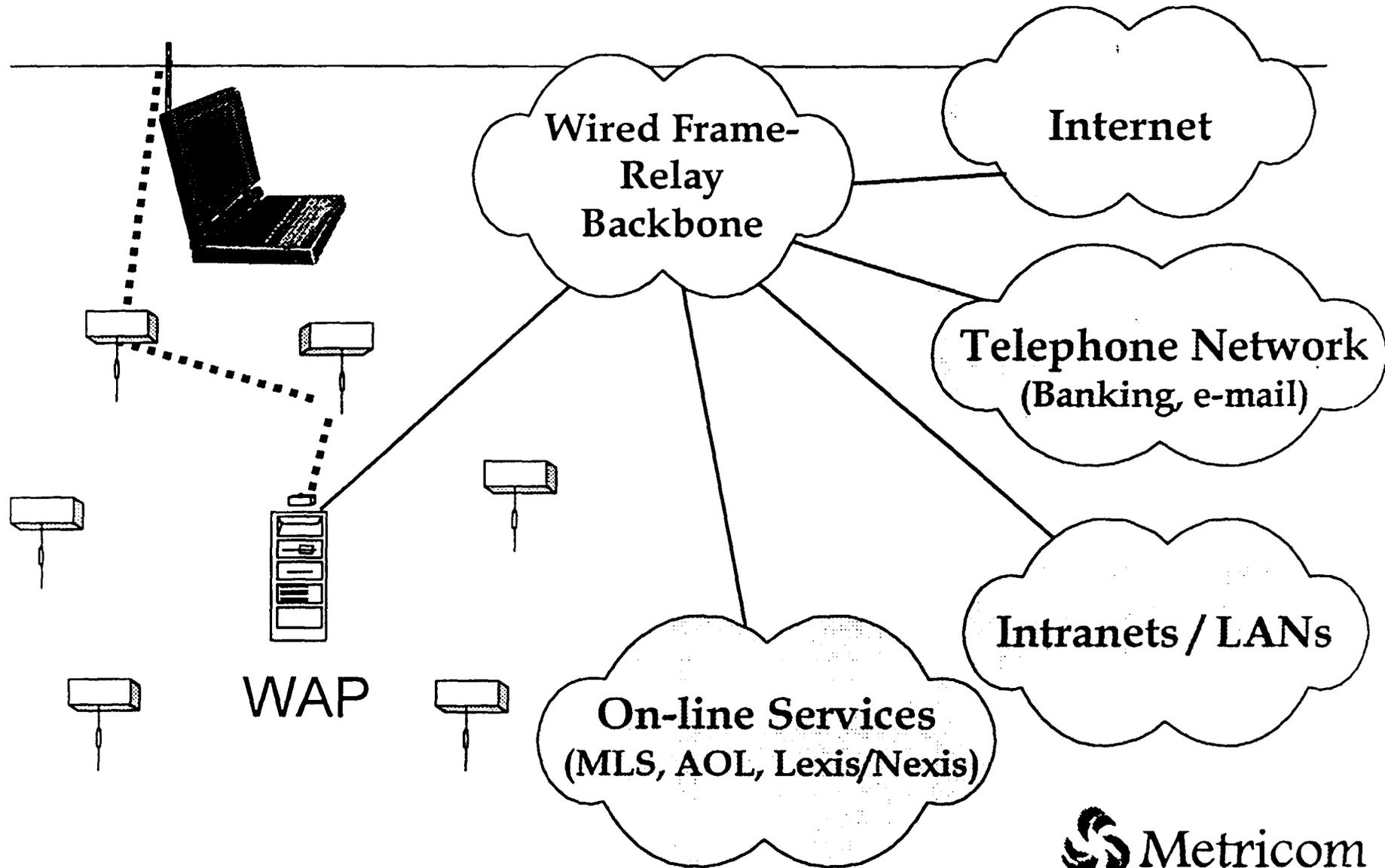
# *Ricochet Makes Handheld Computers Powerful Tools*

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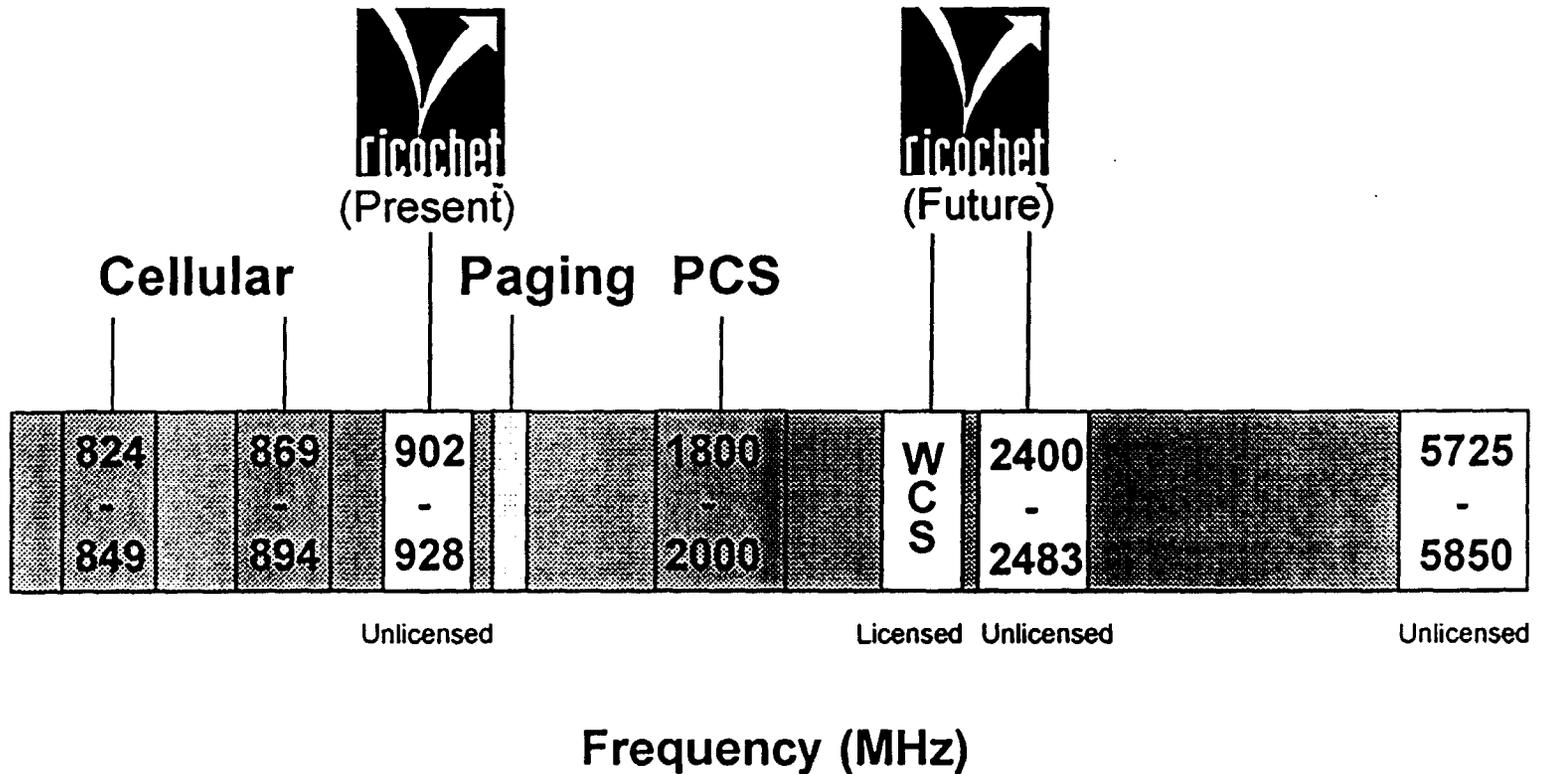


- E-mail
- Internet
- Stocks/Finance
- Desktop  
synchronization

# *Ricochet Takes You Many Places*



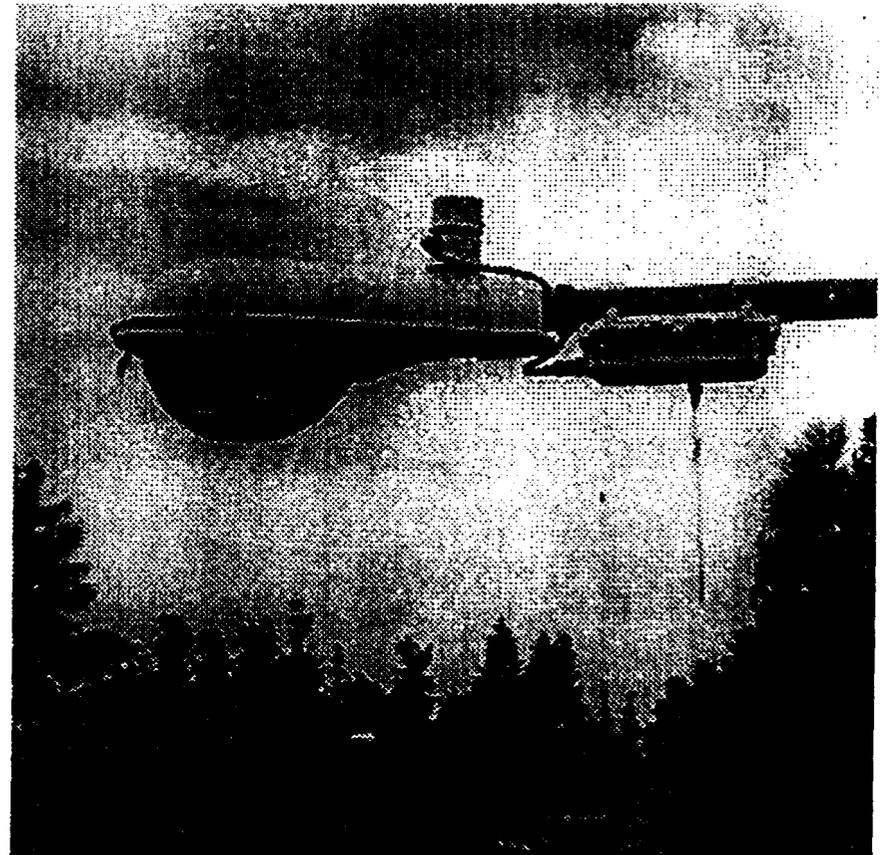
# *Ricochet Frequencies*



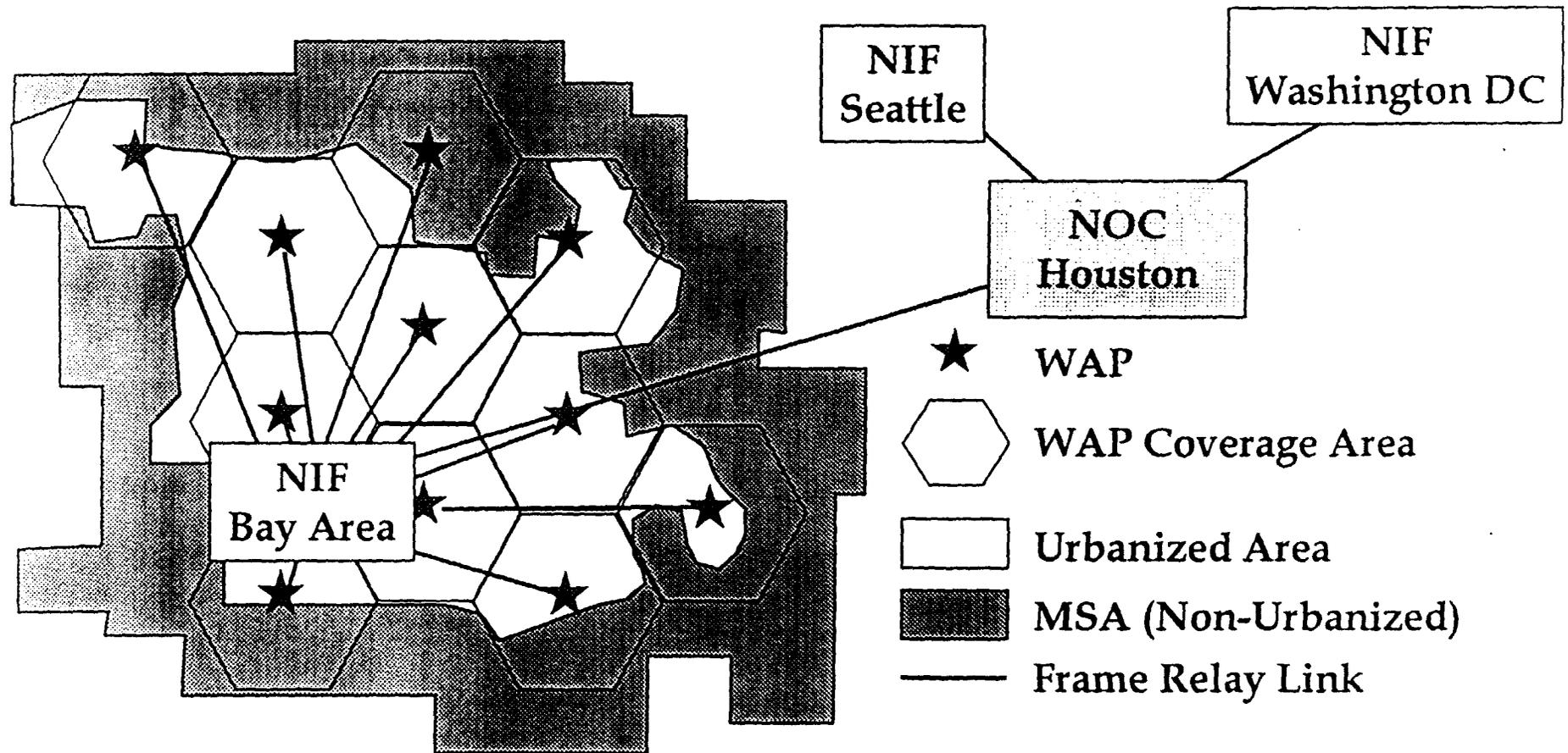
# *The Network*

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- 100% digital packet-switched network
- Network radios installed in clusters of 100+
- Wired access points (WAPs) on buildings
- Frequency hopping, spread spectrum
- Proprietary architecture
- 20 patents



# *Clusters Are Interconnected With High-Speed Frame Relay*



# *Present and Planned Ricochet Coverage*

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## ***Metropolitan Area Networks***

- San Francisco Bay Area (1995)
- Seattle (1996)
- Washington, DC (1996)
- Los Angeles (begin 1997)
- New York (begin 1998)

***Major Airports*** (National, Seattle, SFO, etc.)

***Corporate Gateways*** (Cisco, Sun, etc.)

***Universities*** (Stanford, GWU, Miami, Oregon State, etc.)

# *What Metricom Requires*

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- Adequate spectrum
  - High speed
  - Capacity
- Unlicensed, shared spectrum
  - Consumers benefit
  - No auctions, fees for unlicensed, shared spectrum
- Usable transmit power
  - Community-wide coverage
  - 24 hour, not 6-8 hour resource

# *What Metricom Requires (Cont'd)*

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- Simple rules
  - Intelligent networks, not etiquettes
  - Enables engineers to invent best solutions
- Reasonable spectrum occupants
  - Suited for operating in shared spectrum
- Regulatory stability
  - Commitment to unlicensed, shared spectrum
- Access to rights-of-way and antenna siting

# *Metricom Priorities:*

## *Categories of Concern*

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- To maintain the integrity of Metricom's present unlicensed spectrum allocations.
- To obtain additional unlicensed and licensed spectrum allocations for Metricom's growth and its new services.
- To promote simple, flexible and fair technical rules that will encourage technology and marketplace forces to replace existing regulation.
- To promote a favorable regulatory environment for Metricom's business plan.

# *Metricom Priorities:*

## *Categories and Proceedings*

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<b><u>Unlicensed Spectrum Integrity</u></b>	<b><u>Additional Spectrum Opportunities</u></b>	<b><u>Simple, Flexible Rules</u></b>	<b><u>Favorable Regulatory Environment</u></b>
<ul style="list-style-type: none"><li>• LMS Reconsideration</li><li>• Amateur Spread Spectrum NPRM</li><li>• Part 15 Statutory Framework</li></ul>	<ul style="list-style-type: none"><li>• Part 15 Statutory Framework</li><li>• No Etiquettes</li><li>• 220 MHz</li><li>• WCS</li></ul>	<ul style="list-style-type: none"><li>• No Etiquettes</li><li>• 220 MHz</li><li>• WCS</li></ul>	<ul style="list-style-type: none"><li>• Rights-of-Way and Antenna Siting</li><li>• OET Reorg.</li></ul>

# *Metricom Priorities:*

## *LMS Reconsideration*

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Authorization of Multilateration-LMS introduced a service not designed for sharing into the 902-928 MHz band and therefore created a threat to Part 15 operations in the band.

- Part 15 height threshold.
- Wideband LMS forward links.
- Field testing of LMS systems.
- Interpretation of Part 15 last links.
- Treatment of mobile Part 15 devices.
- Permitted interconnect and messaging for LMS.

# *Metricom Priorities:*

## *Amateur Spread Spectrum NPRM*

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NPRM proposes authorization for unlimited spread spectrum operations for amateurs that could make Part 15 bands unusable.

- Part 15 equipment is commercially available that could be modified to run at amateur power levels (up to 100 watts and unlimited EIRP).
- Such amateur operations could cause insurmountable interference to Part 15 use of the bands.
- Proposed rule could be extremely damaging to public confidence in the Part 15 community.
- Interested amateur community deeply split.
- Could interfere with certain ISM equipment.

# *Metricom Priorities:*

## *Part 15 Statutory Framework*

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Some have asserted that Part 15 rules go beyond the Commission's statutory authority to authorize operation of at least some unlicensed devices and services potentially threatening Part 15 operations entirely.

- Metricom and other Part 15 companies require solid, consistent assurance of stability for continued authorization of Part 15 operations in unlicensed bands.

# *Metricom Priorities:*

## *No Etiquettes*

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The Commission approach to etiquettes in U-NII and Above 40 GHz was proper. The approach used in unlicensed PCS was not.

- Etiquettes presuppose specific equipment design and applications.
- The industry consensus process as implemented by WINForum was seriously flawed.

# *Metricom Priorities:*

## *220 MHz Rules*

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Metricom purchased an option to acquire a nationwide 220 MHz license contingent on rules that expand permitted uses of the spectrum.

- Metricom filed PFR requesting replacement of Phase I licensee construction benchmarks with Phase II construction benchmarks.
- PFR proposal would permit Phase I licensees to provide competitive and innovative services like Phase II licensees and install equipment to provide such services instead of having to install useless equipment solely to comply with construction deadlines.