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October 25, 2002

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: WT Docket No. 02-196 -- Applications of i2Way Corporation
(File Nos. 0000361676 *et al.*)
Ex Parte Communication

Dear Ms. Salas:

Pursuant to Section 1.1206(a)(2) of the Commission's Rules, on behalf of Hexagram, Inc., I am filing this letter electronically to report an oral ex parte communication in the above-referenced proceeding.

Yesterday, Larry Sears of Hexagram and I met with Rose Crellin and Barnett C. Jackson, Jr. of the Wireless Telecommunications Bureau.

We reiterated the points made in Hexagram's pleadings, and wish to emphasize these:

1. ***Scope***. Hexagram's objection to the i2way applications extends not only to the applications specifically captioned in Hexagram's pleadings, but to any applications that propose to share frequencies with the systems of Hexagram or its customers.

2. ***Standing***. Hexagram's standing in this proceeding arises from i2way's representations that its system will protect "all co-channel users, whether employing modern digital systems or legacy analog equipment,"[1] was

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[1] *Statement Detailing A New Technique for the Deployment of Low-Power Frequencies in the 450-470 MHz Band*, attached to Letter from Frederick J. Day, Counsel for i2way Corporation, to Federal Communications Commission (dated June 5, 2001).

> "specifically designed to be 'invisible' to other low-power operations,"[2] and will "render i2way's transmissions imperceptible to other users."[3] Hexagram would be a co-channel low-power digital user if the i2way applications were granted, and so would be a beneficiary of i2way's commitment. Hexagram has standing to seek assurances that i2way's system is technically capable of meeting that commitment.

A copy of our presentation outline is attached.

If there are questions about this submission, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus
Counsel for Hexagram, Inc.

cc: Meeting participants

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[2] Letter from Frederick J. Day, Counsel for i2way Corporation, to Federal Communications Commission at 1 (dated June 5, 2001) ("Day Letter").

[3] *Id*.

Applications of i2Way Corporation
File Nos. 0000361676 *et al.*

Ex Parte Presentation by Hexagram, Inc.[4]
October 24, 2002

About Hexagram

- Hexagram has been a major national vendor of automatic meter reading systems since 1984.

- Hexagram has over two million devices installed for collection and reporting of utility usage data.

- Nearly 500,000 Hexagram devices at hundreds of sites use fixed RF networks under Part 90 low power rules.

  - These devices have provided utilities with valuable meter reading data since 1996.

- Characteristics of Hexagram low power devices:

  - battery powered with a very low duty cycle (20 year battery life)

  - data burst of under 100 milliseconds two or three times each day

  - very high spectrum efficiency, due to the very large number of transmitters deployed on a single channel.

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[4] This is a permit-but-disclose proceeding. *See Wireless Telecommunications Bureau Seeks Comment on I2way Corporation's Request for Declaratory Ruling Regarding the Ten-channel Limit of Section 90.187(e)*, WT Docket No. 02-196, Public Notice, DA 02-1827 at n.18 (released July 29, 2002).

About i2way's Applications

- i2way proposes to identify temporarily vacant channels licensed to others, and then use them for a period of time, "usually" 30 to 60 seconds.[5]

- i2way has assured the Commission that its system:

  - will protect "all co-channel users, whether employing modern digital systems or legacy analog equipment."[6]

  - "will automatically bypass any frequencies then in use by other systems."[7]

  - "is premised on providing a high degree of 'deference' to the communications of other users."[8]

  - "was specifically designed to be 'invisible' to other low-power operations."[9]

  - will protect "[a]ll co-channel users, whether employing modern digital systems or legacy analog equipment."[10]

  - "will render i2way's transmissions imperceptible to other users."[11]

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[5] *Statement Detailing A New Technique for the Deployment of Low-Power Frequencies in the 450-470 MHz Band*, attached to Letter from Frederick J. Day, Counsel for i2way Corporation, to Federal Communications Commission (dated June 5, 2001) ("i2way *Statement*").

[6] i2way *Statement*.

[7] *Note Regarding the Requirement for Access to the Full Panoply of Low-Power Frequencies* at para. B, attached to Application File Nos. 0000361676 *et al.* (filed Dec. 10, 2001).

[8] *Id*.

[9] Letter from Frederick J. Day, Counsel for i2way Corporation, to Federal Communications Commission at 1 (dated June 5, 2001) ("Day Letter").

[10] i2way *Statement* at 2.

[11] Day Letter at 1.

Hexagram's concerns

- Details in i2way's applications imply that its system will interfere with Hexagram and others with low duty cycle operations:

  - i2way proposes to sample 130 channels at 100 channels per second.[12]

  - This means each channel will go unmonitored more than 99% of the time, with continuous unmonitored durations of well over one second.

  - A typical Hexagram system transmits a signal about every 10 seconds, with durations of less than 1/10 second, for 1% channel occupancy.

  - *The odds that a given i2way monitoring cycle will detect an active Hexagram system are worse than 100 to 1.*

  - Even if detected by i2way, an individual Hexagram transmission will resemble a brief noise burst to a system looking for more sustained communications.

  - In short, the i2way system will likely mischaracterize a Hexagram-occupied channel as vacant, despite its use by thousands of active transmitters.

  - Wrongly identifying them as vacant, the i2way system may consistently choose the Hexagram channels for operation.

  - The likely result: near-continuous interference to Hexagram's customers.

- Hexagram asked only that the Commission ensure i2way's promise of non-interference extends to Hexagram's operations.

  - *Hexagram does not otherwise oppose i2way's applications.*

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[12] *See e.g.* Application File No. 0000361718 (133 channels). This applications is typical.

i2way's Response

- i2way devoted nearly all of its opposition to irrelevant "smokescreen" issues.[13]
- i2way clarified that it will monitor a channel "for a reasonable period" prior to transmitting on it.[14]
  - But i2way wrongly supposes the Commission requires such monitoring.[15]
  - i2way has not committed to prior monitoring in the absence of a rule requiring it.
- And i2way has failed to state:
  - how long it will occupy a channel before releasing it;[16]
  - how long it will monitor a channel before transmitting on it;[17]

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[13] Specifically, i2way asserted (incorrectly) that Hexagram lacks standing to oppose i2way; Hexagram is not entitled to protection from i2way; Hexagram is improperly licensed; Hexagram's low-power telemetry operations are secondary to i2way's voice operations; Hexagram must employ automatic monitoring; Hexagram has tried to give itself an unfair competitive advantage; Hexagram will create massive interference on land mobile frequencies; Hexagram is a threat to homeland security; the Commission should cancel all of Hexagram's licenses; Hexagram has filed a disingenuous Petition to Deny; and Hexagram has caused i2way unnecessary expense, costs and delay that it can never hope to recover. Opposition of i2way Corporation at 2-15 (filed April 1, 2002).

i2way also asserted that Hexagram's Petition should be dismissed as untimely. *Id*. at 2. Missing the irony, i2way made this demand in an untimely (and uncivil) pleading of its own, to which Hexagram had given prior consent.

[14] i2way Opposition at 8-9 .

[15] *Id*.

[16] i2way says only that occupancy will "usually" last 30 to 60 seconds. i2way *Statement*. i2way neither states how often occupancy might exceed 60 seconds, nor specifies a maximum occupancy.

[17] i2way says only that it will "typically" wait until the channel has been vacant for 15 seconds, but this may "vary depending on channel loading." i2way *Statement* at 1. i2way does not state how short might this time become.

- whether the monitoring process will reliably and consistently detect brief transmissions, such as Hexagram's, as occupying the channel;

- how long will the system consider the channel occupied before it checks the channel again;

- after using and releasing a channel, how long will it leave the channel alone before polling it again for possible re-use.

■ In the absence of this very basic information, i2way has not established it can keep its commitment to avoid interference to Hexagram, and to other users transmitting brief but critical messages.

Conclusion

■ The Commission should not grant the i2way applications until i2way has affirmatively demonstrated it will not cause interference to other users, including Hexagram.