

FHH Telecom Law
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**FCC Rejects In-Hospital
Positioning System**

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A manufacturer of a low power radiolocation device targeted at locating hospital personnel and equipment was recently rebuffed by the FCC in its attempt to upgrade the device. Radianse's "indoor positioning system" uses tags on people and equipment to track their location as they move around a hospital setting. The device had been certified under Part 15 of the rules to operate on an unlicensed basis but Radianse wanted to increase the time between transmissions from the required 10-second intervals to 2-second intervals. It claimed that the 2-second interval was necessary to accurately track typical movements in a hospital environment.

To avoid the interval requirement, Radianse proposed that its device be operated on a *licensed* basis under Part 90 (the private radio rules) which sets no interval limit, but there it ran into another obstacle – the Part 90 rules impose a higher frequency stability threshold (five parts per million) than the 30 ppm at which the Radianse device operates. The Commission first rejected Radianse's argument that this frequency stability requirement does not apply to low power Part 90 operations such as it proposed; the requirement is frequency-specific rather than power-specific. The FCC also declined to waive the requirement because the device, if operated under Part 90, would have primary status and thus be entitled to interference protection vis-à-vis other users in the 420-450 MHz band, including military radiolocation operations. The FCC did not feel comfortable that the reduced frequency stability would not cause interference. Moreover, the FCC did not see why Radianse could not have chosen a different frequency for its device where the frequency stability threshold is looser and the device would have been compliant (*e.g.*, 150 – 174 MHz rather than the chosen 433.92 MHz).

We always appreciate imaginative theories for skirting the FCC's rules in a good cause, but Radianse's creative approach here unfortunately fell on unreceptive ears.