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## **Get Out Your Crayons and Glue Stick: It's Design-a-Database Time**

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Regular readers know that the FCC adopted rules to allow new, unlicensed, wireless devices to operate in unused channels of the broadcast television spectrum just over a year ago. This was an exciting development for wireless broadband access and content providers, but incumbent users (such as television broadcasters and wireless microphone operators) worried about interference. Therefore, the FCC required that white space devices – which it calls “TV band devices” – must prevent interference by having both spectrum-sensing capability and also geo-location capability with access to a database of licensed users. The idea is that a TV band device will: (a) access a database; (b) let the database know where the device happens to be located; and (c) receive a list of available frequencies for that location. As an additional safeguard, TV band devices will also detect other users and drop off their frequencies. A separate and more stringent procedure will authorize “sensing only” devices that lack geo-location.

Obviously, establishing a database is a crucial step in the process of designing and testing these new devices because they must be able to interface with it. Accordingly, on November 25, 2009, the FCC's Office of Engineering and Technology issued a Public Notice “inviting proposals from entities seeking to be designated TV band database managers.”

This is in part a creative design competition: the FCC specifies only that each design must include “basic functional architecture . . . a data repository, a data registration process, and a query process.” Beyond that, prospective database managers are limited only by the scope of their imaginations and the number of pipe cleaners they can grab off the craft table.

Each applicant must provide:

- ✂ A demonstration of sufficient technical expertise;
- ✂ A demonstration of a viable business plan;
- ✂ The scope of the database functions it plans to perform;
- ✂ If the plan involves multiple databases, a description of how data will be

- synchronized;
- ✘ If the plan involves multiple entities, information on other involved entities and their business relationship with the applicant; and
  - ✘ A description of the methods (*e.g.*, interfaces, protocols) to be used by devices to communicate with the database, including any security measures.

Proposals are due by January 4, 2010. They will presumably be made available for review by the public soon thereafter, because the Commission has also invited comments (due February 3, 2010) and replies (due February 18, 2010) on the proposals. Sharpen those crayons, because we expect that neatness will count.