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April 24, 2009

Ex Parte via Electronic Filing

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Authorized Ex Parte Contact – ET Docket No. 04-186; WT Docket No 08-166, WT Docket No. 08-167

Dear Ms. Dortch:

On April 23, 2009, Minnie Ingersoll, Larry Alder, and the undersigned, all representatives from Google Inc. (Google), met with Rick Chessen, Chief of Staff, and Paul Murray, Wireless Advisor, to Acting FCC Chairman Michael Copps, to discuss issues related to the above-referenced proceedings. During the course of the conversation, the Google representatives referred to the attached April 10, 2009 filing by the White Spaces Database Group.

In the discussion, the Google representatives expressed their continuing support for the industry's ability to create and operate a geolocation database on a timely basis. We also explained the rationale for dividing the functions into one or more Data Repository Services, and one or more Service Providers. The Google representatives indicated in particular their interest in a system that will guarantee the integrity and security of the data, provide for public transparency of the data, and allow potential future extensibility of the database to support other horizontal and vertical functionalities.

The Google representatives also briefly discussed issues related to the Public Interest Spectrum Coalition (PISC) petition filed in WT Docket No. 08-166. We explained our understanding that the sole issue presented by PISC was ensuring that both authorized and unauthorized wireless microphones do not interfere with the new public safety and commercial licensees for broadcast channels 52-69. We made clear that Google supports the PISC petition in that proceeding.

The Google representatives noted that we recently have come to learn that the FCC may be using the PISC filing as the basis for considering a considerable expansion of the Part 74 rules eligibility criteria for unauthorized microphones. Such an expansion, if adopted,

could have a hugely detrimental impact on the Commission's separate decision in ET Docket No. 04-186 to open up the unused TV bands to unlicensed white space devices (WSDs). In our view, the FCC's White Spaces Order adopted the right overarching framework for the successful use of those bands, and for the most part balanced well the many competing interests, including those of the users of microphones. By contrast, the proposed expansion of the Part 74 criteria for a wide range of users of microphones could significantly reduce the remaining available channels for WSDs, which in turn would threaten the commercial viability of many broadband-based business plans for that spectrum.

We further noted that this issue was not raised expressly by the Commission with regards to the PISC petition, leading to the possibility that this issue was not properly noticed in WT Docket 08-166. Regardless, Google believes that any issues surrounding granting more expansive rights to wireless microphones in the TV White Spaces bands properly should be decided in ET Docket 04-186.

Finally, we commented that there are a number of possible options that would not necessarily damage the commercial viability of the TV white spaces. These include establishing a "license by rule" that gives wireless microphones no greater protection outside the 700 MHz bands than has been granted to WSDs, and granting the wireless microphones a permanent safe harbor in every market, at the first two available channels outside Channel 37. Again, any such proposals should be fully vetted in the more appropriate venue of ET Docket No. 04-186, or at minimum subject to a separate public notice issued in WT Docket No. 08-166.

Should you have any questions, please do not hesitate to contact the undersigned.

Respectfully submitted,



Richard S. Whitt, Esq.
Washington Telecom and Media Counsel

Att: April 10, 2009 ex parte filing by the White Spaces Database Group

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April 10, 2009

Ex Parte via Electronic Filing

Julius P. Knapp
Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Authorized Ex Parte Contact – Unlicensed Operation in the TV Broadcast Bands (ET Docket No. 04-186)

Dear Julie:

This letter is being submitted in the above-cited proceeding, on behalf of various entities operating as the White Spaces Database Group (Group). Current members of the Group include Consumer Electronics Association (CEA), Comsearch, Dell, Fox, Google Inc., Microsoft Corporation, Motorola, Association for Maximum Service Television, Inc. (MSTV), NetLogix, NeuStar, PCIA, Philips, Public Interest Spectrum Coalition (PISC), Spectrum Bridge, SWIM, and Waterford Consultants, LLC.

The White Spaces Database Group's chief objective is to foster the near-term adoption and implementation of a geolocation database that will successfully support the safe and secure operation of white spaces devices (WSDs) within the parameters of the FCC's November 2008 order.¹ Per that order, we understand that the Office of Engineering and Technology (OET) is finalizing a Public Notice (PN) concerning various elements necessary for establishing the white spaces database. To expedite the agency's consideration of the appropriate models for deploying such a database, the Group is pleased to submit for the record two separate documents: (1) a set of diagrams setting forth a preliminary functional architecture for the database, and (2) a document outlining the terms and concepts used in describing the database architecture.² Both documents are attached.

¹ Federal Communications Commission, Unlicensed Operation in the TV Broadcast Bands, Second Report and Order and Memorandum Opinion and Order, ET Docket No. 04-186, ET Docket No. 02-380, 23 FCC Rcd. 16807 (2008).

² MSTV and Fox believe that the proposed architecture outlined in the attached diagrams does not reflect their views of creating a single database repository and administrator.

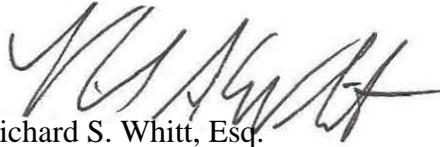
Further, in order to ensure that the Commission has developed a useful record in the proceeding, the Group proposes that the PN address the following salient topics related specifically to the functional components shown in the database diagrams:

- the relative merits of separating the database functions between a Data Repository and multiple Service Providers;
- the qualifications and mechanism for an entity to become a Service Provider;
- the qualifications and mechanism for an entity, including a non-profit association representing industry stakeholders, to become a Repository Administrator;
- the relative merits of having multiple Service Providers per Data Repository;
- the relative merits of having multiple Repository Administrators; and
- whether a Repository Administrator should be authorized, or even required, also to operate as a Service Provider.

We look forward to working with you and your staff on these and other important elements of the geolocation database.

Please let us know if you have any questions.

Respectfully submitted,

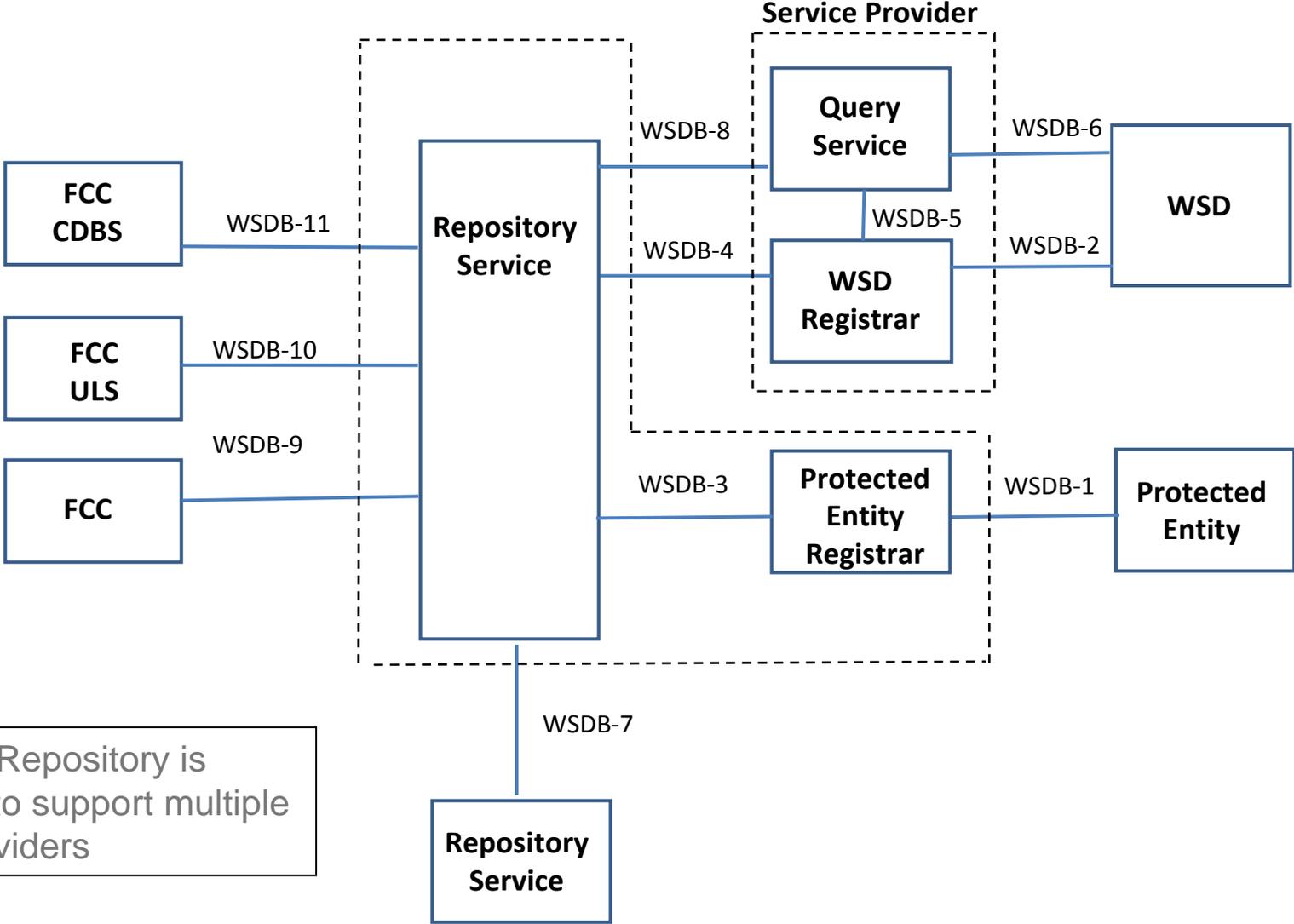


Richard S. Whitt, Esq.
Washington Telecom and Media Counsel
Google Inc.

cc: Marlene Dortch, Secretary, FCC

Attachments: White Space Database Reference Architecture (slides)
White Spaces Database Architecture Definitions

Figure 1. WSDB Reference Architecture



Note: Each Repository is anticipated to support multiple Service Providers

Appendix

Figure 2. WS Reference Architecture with Combined WSD Registrar and Query Service

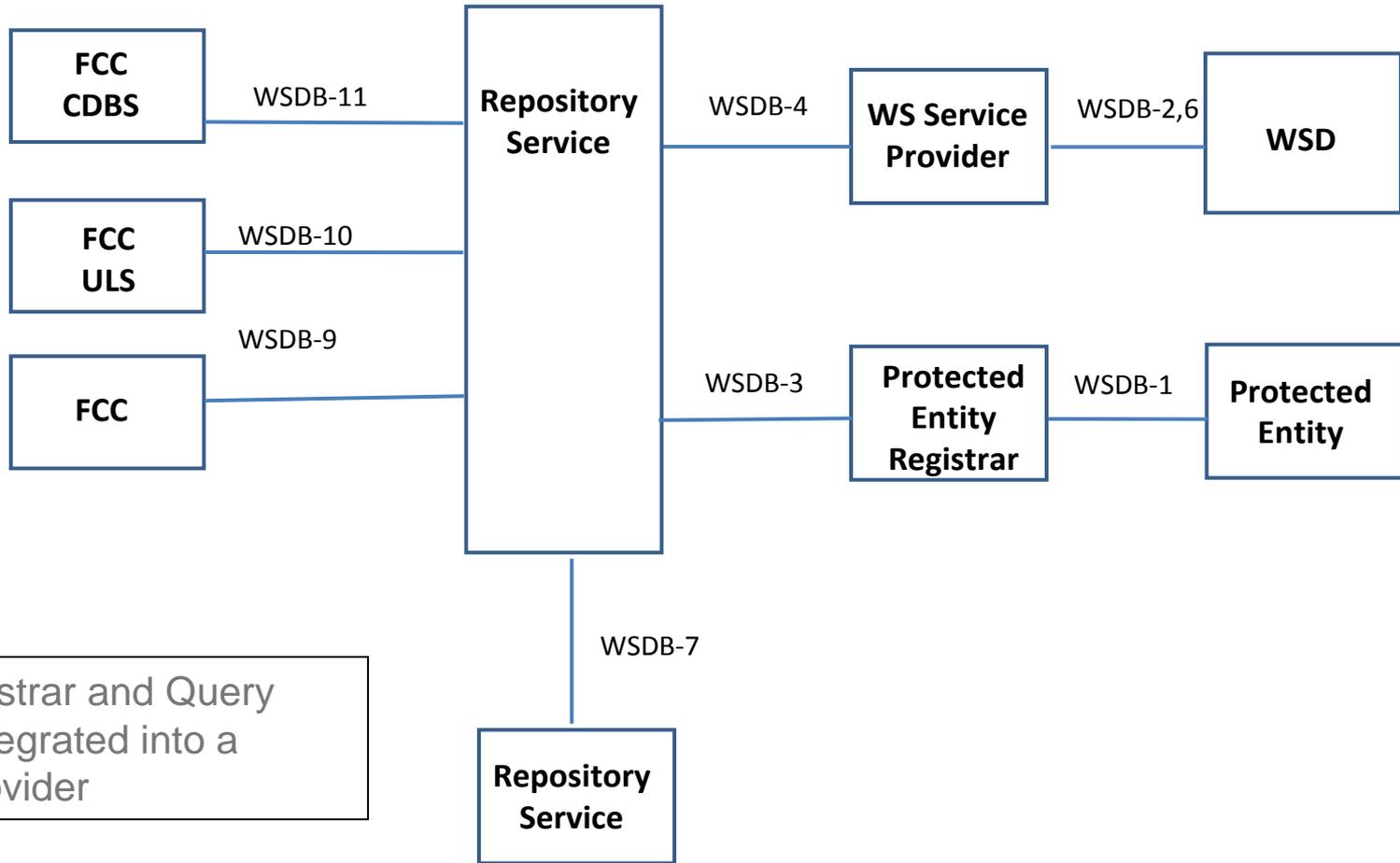
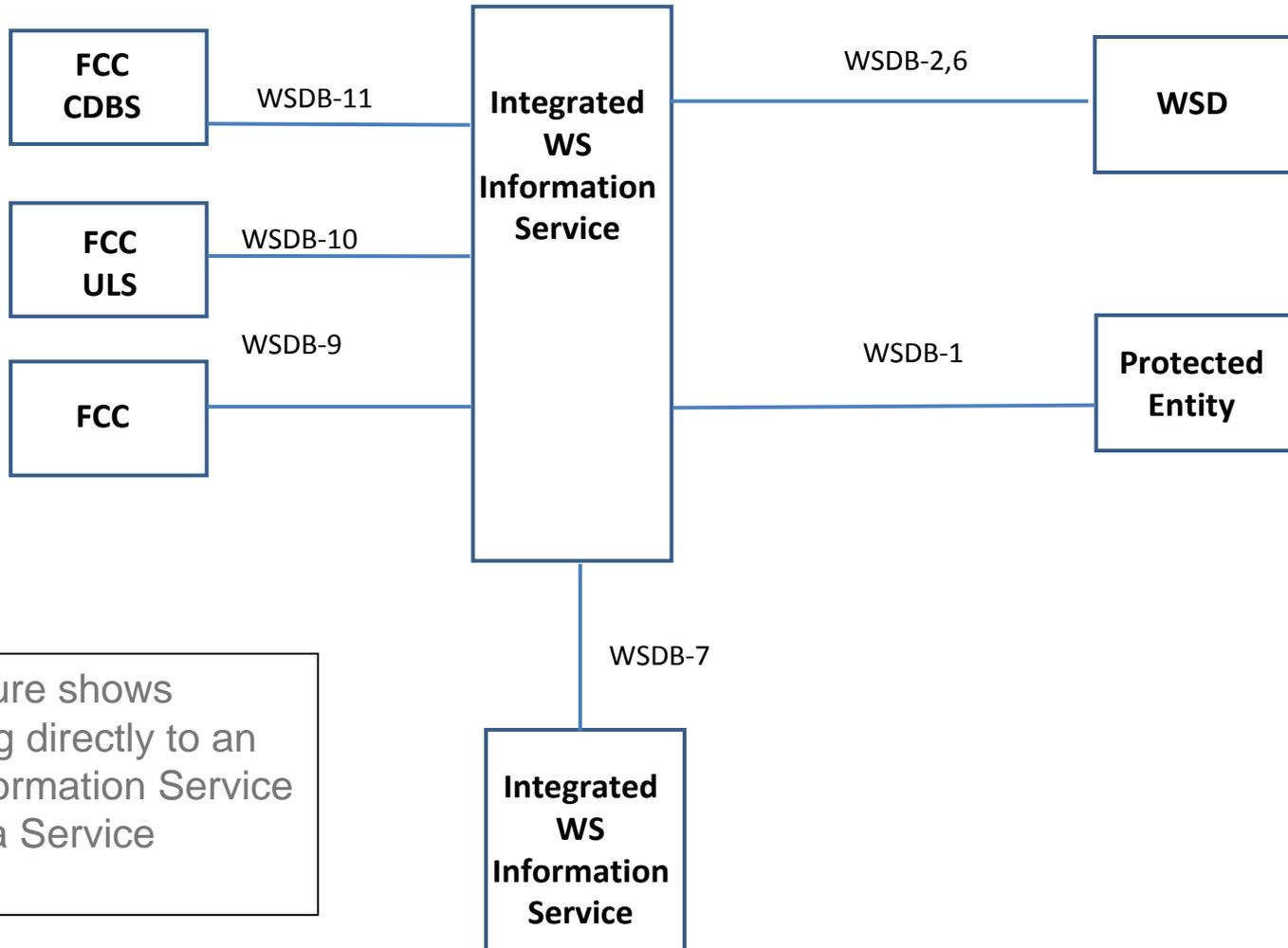
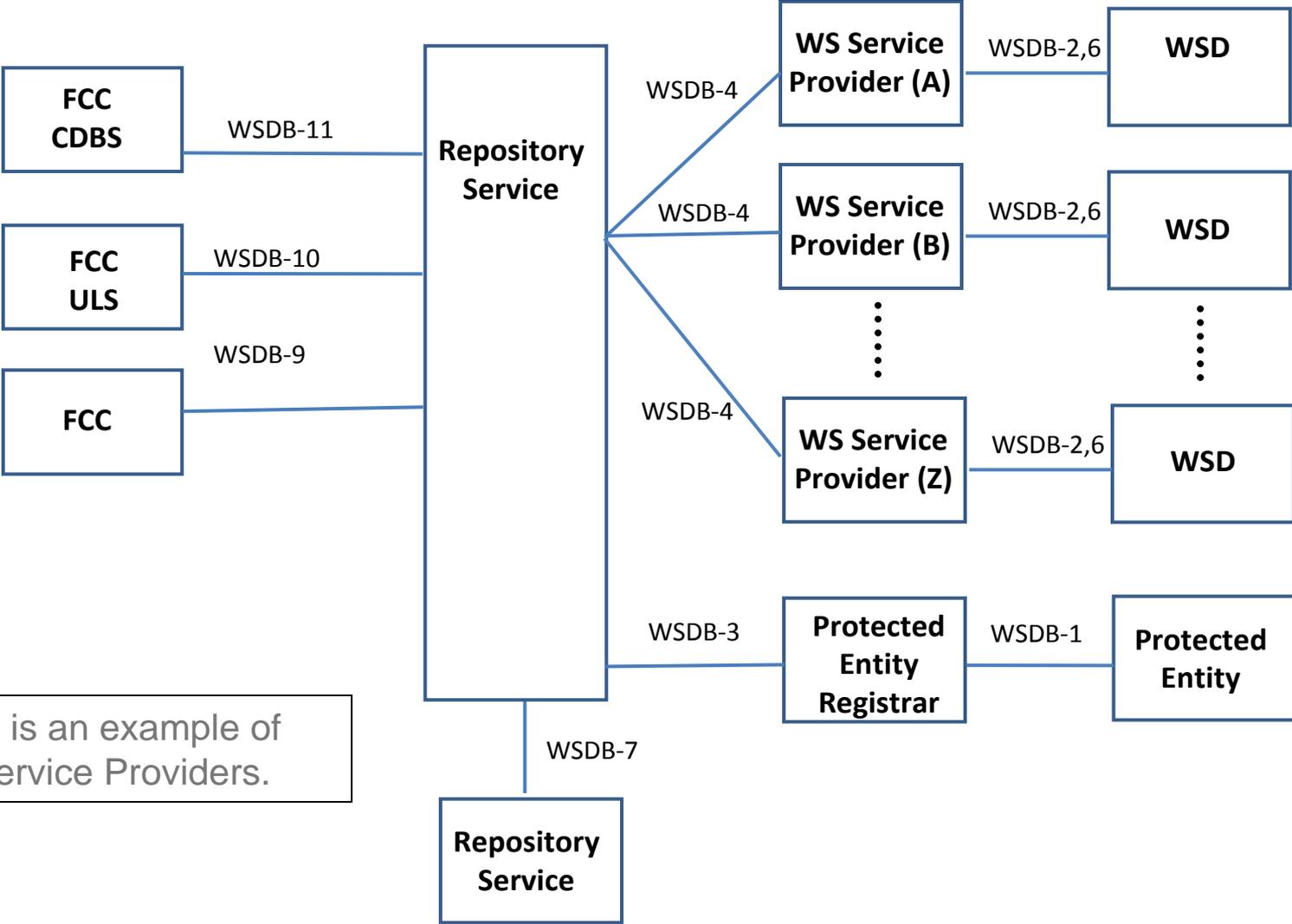


Figure 3. WS Reference Architecture with Combined WSD Registrar, Repository and Query Service



Note: This figure shows devices talking directly to an Integrated Information Service rather than via Service Provider

Figure 4. Multiple Service Providers



Note: This is an example of multiple Service Providers.

WSDB Architecture Definitions

DEVICES/ENTITIES

White Spaces Device (WSD) - Refers to unlicensed devices that will use the White Spaces. This includes Fixed devices and personal/portable devices, both Mode I and Mode II, as defined in the FCC Order. [15.703(o)]

Protected Entity - Refers to locations and services entitled to protection [15.712]

Registrant - The Registrant is an entity that registers data (Protected Entity and registered WSDs) with the Registrar (defined below).

Data Repository – A repository of data that contains ALL the Protected Entity information and all the registered WSD information. [15.713]

ROLES/SERVICES

Registrar - The Registrar receives WSD and/or Protected Entity registrations and provisions those registrations into a Data Repository. A Registrar does not have to provide registration to all devices. Registrars may specialize in registering certain types of devices. For example, there could be a Registrar that just specializes in protected entities.

Repository Service – Manages a Data Repository and communicates information with other services but not necessarily end users

1. Maintains a Data Repository
2. Gets data from FCC databases and synchronizes with those databases [15.715(b)]
3. Provides interface for FCC enforcement of repository information.
4. Accepts registration information from Registrars
5. Disseminates required repository information to Query Service providers
6. Exchanges registration information with other Repository Services

Repository Administrator – Is the legal entity that is responsible and accountable to the FCC for administering a Repository Service.

Query Service – The Query Service returns available channels by combining the lat/lon sent by the device with protected area information received from the Data Repository. The Query Service has no autonomy about the calculation since all the rules are coming from the Repository.

COMBINED ROLES/SERVICES

The Repository Service, Registrar Service and Query Service can be independent services. However, they may in practice be combined. This section defines some terms for combined services.

Integrated White Spaces Information Service – Repository Service, Registrar Service, and Query Service functions are combined into one entity.

White Spaces Service Provider - Registrar for WSD and Query Service functions are combined into one entity.