



Federal Communications Commission
Washington, D.C. 20554

September 19, 2018

DA 18-967

Adam Leach
Nominet UK
Oxford Science Park
Oxford, OX4 4DQ
United Kingdom

Dear Mr. Leach,

Approval is hereby granted for Nominet UK (Nominet) to operate its white space database system to provide service to the public. This database system will support unlicensed radio devices that transmit on unoccupied spectrum within the broadcast television bands, the 600 MHz service band, the 600 MHz duplex gap, and in channel 37 ("white spaces").

The Commission's Part 15 rules (47 CFR § 15.701 *et seq.*) require that unlicensed devices operating in the white spaces (white space devices) are required to provide their geographic locations by means of a secure internet connection to a white space database system authorized by the Commission. When a device provides its location to a database, the database will then return a list of channels available for operation by the device at that location.

Nominet was conditionally designated as a white space database administrator under the Part 15 rules in an *Order* released June 11, 2018, DA 18-605. Final approval for Nominet's operation of a white space database system is subject to compliance with requirements that it: 1) demonstrate that its database system complies with the white space rules adopted in this proceeding, as modified in 2010 and 2015; 2) agree that it will not use its capacity as a database manager to engage in any discriminatory or anti-competitive practices or any practices that may compromise the privacy of users; 3) coordinate closely with the agency to ensure competency, consistency, and compliance with the rules; 4) participate in any mandatory workshops conducted by the Commission's Office of Engineering and Technology (OET) to address implementation issues and to ensure consistency and compliance with the rules; and 5) subject its database to real-world testing for a period of not less than 45 days. This public trial is intended to allow interested parties an opportunity to check that the database provides accurate results before being made available for actual use by white space devices.

Nominet has demonstrated in its filings that it complies with conditions 1 through 4. In addition, it conducted a public trial of its database system as required by condition 5 from June 11, 2018 to July 26, 2018. In this trial, Nominet made its channel availability calculator, as well as its procedures for registering protected

facilities, including low power auxiliary services (principally licensed wireless microphones), MVPD receive sites, temporary broadcast auxiliary links, and locations where 600 MHz band licensees have commenced operation, that are not in the FCC databases available for testing by the public. During the trial Nominet received and satisfactorily resolved several comments and concerns regarding the performance of its database system. Actions taken in response to this feedback from the public included several changes to improve the functioning of the database system. Nominet's final report on its 45-day public trial was placed in the record of the white spaces proceeding, ET Docket No. 04-186, and comments were requested in a Public Notice released August 1, 2018, DA 18-800.

One party, the National Association of Broadcasters (NAB), filed comments on Nominet's report on August 16, 2018. NAB described three areas of concern: 1) whether Nominet is exchanging data with other database administrators as required by the rules; 2) whether Nominet has provided a utility for registering fixed devices; and 3) apparent errors in channel availability calculations.

Nominet responded to NAB's concerns on August 23, 2018. It stated that it is synchronizing data with other database administrators and that NAB does not identify any respect in which the synchronization process is not functioning as required. Nominet also states that it did, in fact, provide a utility for registering fixed devices that was explained on its web portal. Finally, Nominet indicates that it successfully resolved two issues raised by NAB concerning its channel availability calculator. Specifically, it modified its system to import television channel information from the Commission's newer Licensing and Management System (LMS) rather than the older Consolidated Database System (CDBS). In addition, Nominet states that it corrected the information in its database for the single TV station in the LMS database with a particular facility status code. Nominet states it is not aware of any other TV station information that has not been properly imported into its database, and that it will correct any other incorrect information that is brought to its attention.

Based on our own examination and testing of the Nominet database system, the results of the public trial, including comments submitted to Nominet during and after the trial and Nominet's responses to those comments, we find that Nominet has demonstrated that its channel availability calculator is able to properly determine the unused channels at a location that may be used by the different types of unlicensed white space devices. We also find that its registration procedures properly record, store and retrieve protected facilities that are not in the FCC databases. We therefore find that Nominet's white space database system is compliant with the Commission's rules and ready for operation. We have not yet tested this database system with an actual white space device. When an application for a white space device that accesses Nominet's database system is processed, we will verify that the database's provisions for securing communications between a device and the database are functioning in accordance with the rules in conjunction with our testing of the device itself.

As the implementation of the Commission's plan for operation of white space devices proceeds, we anticipate that there may be additional changes in various aspects of the applicable white space device rules. There may also be elements of Nominet's database system that will need to be adjusted as experience is gained with white spaces operations by the Commission, database administrators, device manufacturers, and device users. We will provide instructions to Nominet and the other database administrators to incorporate and test refinements at such time as they may be developed. We do not generally expect that such refinements will necessitate additional testing through a public trial. We anticipate that operation of these features will be verified by the OET staff. Nonetheless, we are reserving the option to request that Nominet undertake additional public trial testing if we determine that such testing is necessary to ensure that the database systems properly determine available channels and protect authorized services for any changes to the rules the Commission may adopt in the future.

Accordingly, we are granting approval for Nominet to operate its database system to provide service to certified unlicensed devices that operate on unoccupied spectrum within the broadcast television bands, the 600 MHz service band, the 600 MHz duplex gap, and in channel 37, as described above. Authority for this action is provided in Section 0.241(h) and Sections 15.701-.715 of the Commission's rules, 47 CFR § 0.241(h) and §§ 15.701-.715 and Sections 4, 5, 303, 304, 307, and 336 of the Communications Act of 1934 as amended, 47 U.S.C. Secs. 154, 155, 302a, 303, 304, 307, and 336.

Sincerely,

Julius P. Knapp
Chief, Office of Engineering and Technology