



Spectrum Management and Telecommunications

Client Procedures Circular

Application Procedures for Dynamic Spectrum Access System Administrators (DSASAs)

Contents

Acronyms	4
1 Purpose.....	1
2 Mandate	1
3 Policy	1
4 Background	1
4.1 Background for WSDBAs	1
4.2 Background for AFCSAs	2
5 Definitions.....	2
6 Related documents.....	3
6.1 WSDB related documents	4
6.2 AFC system related documents.....	4
6.3 Other relevant documents	4
7 Eligibility.....	4
8 Access to ISED’s licensing information	4
9 DSASA designation process	5
9.1 DSASA application phase	5
9.1.1 Application receipt	5
9.1.2 Application review.....	5
9.2 DSA system evaluation and testing phase	5
9.3 DSASA designation phase	6
9.3.1 Execution of the DSASA designation agreement	6
9.3.2 Letter of designation	6
10 Website listing	6
11 Non-disclosure of data	6
11.1 Non-disclosure of particular applicant data.....	7
11.2 Non-disclosure of particular licensing data	7
12 Disclaimer	7
13 Retaining designation status	7
13.1 Retaining designation due to new technical and/or operational requirements.....	7
13.1.1 Evaluation and testing due to new technical and/or operational requirements....	8
13.1.2 Reconfirming DSASA designation due to new technical and/or operational requirements.....	8
14 Interference resolution procedures	8
15 Revocation of designation and redesignation	9
15.1 Revocation due to a breach of the agreement.....	9
15.2 Redesignation after revocation	9
16 Cancellation of the designation due to termination of the agreement upon joint consent.....	9
17 Auditing procedure.....	9
18 Contact information.....	10

Annex A – Required DSASA applicant information 11

Annex B – Required DSA system information..... 12

Annex C – DSASA designation phase..... 13

 C.1 Sample WSDBA agreement, terms and conditions 14

 C.2 Sample AFCSA agreement, terms and conditions 18

 C.3 Sample DSASA designation letter 22

 C.4 Sample DSASA continuation of designation letter 23

DRAFT

Acronyms

AFC	Automated Frequency Coordination
AFCSA	Automated Frequency Coordination System Administrator
CPC	Client Procedures Circular
DBS	Database Specification
DSA	Dynamic Spectrum Access
DSASA	Dynamic Spectrum Access System Administrator
ISED	Innovation, Science and Economic Development Canada
RLAN	Radio Local Area Network
RSS	Radio Standards Specification
SMS	Spectrum Management System
SMSE	Spectrum Management Spectrum Engineering
WSD	White Space Device
WSDB	White Space Database
WSDBA	White Space Database Administrator

DRAFT

1 Purpose

This document, CPC-4-1-01, *Application Procedures for Dynamic Spectrum Access System Administrators (DSASAs)*, outlines procedures to be followed by applicants who wish to be considered for designation by Innovation, Science and Economic Development Canada (ISED) to become white space database administrators (WSDBAs) or automated frequency coordination system administrators (AFCSAs), collectively referred to herein as dynamic spectrum access system administrators (DSASAs). Such DSASAs shall manage the operation of licence-exempt dynamic spectrum access (DSA) devices operating in the applicable frequency bands to ensure the appropriate protection of licensed radio systems operating within the same frequency range. This document also indicates administrative and operational requirements that these DSASAs shall meet in order to maintain their designation status.

2 Mandate

The Minister of Innovation, Science and Industry, through the [Department of Industry Act](#), the [Radiocommunication Act](#) and the [Radiocommunication Regulations](#), with due regard to the objectives of the [Telecommunications Act](#), is responsible for spectrum management in Canada. As such, the Minister oversees the development of national policies and goals for spectrum resource use and ensures effective management of the radio frequency spectrum.

In accordance with subsection 3(4) of the *Radiocommunication Act*, any power, duty or function under the Act or the *Radiocommunication Regulations* may be exercised or performed by any person authorized by the Minister to do so and, if so exercised or performed, shall be deemed to have been exercised or performed by the Minister.

3 Policy

Designated DSASAs responsible for operating DSA systems, in conjunction with licence-exempt DSA devices, shall ensure effective sharing of the radio spectrum with licensed users.

The Minister will designate such DSASAs in accordance with requirements outlined in this document, and, as part of these requirements, designated DSASAs will enter into contractual agreements with ISED, for the purpose of effectively managing the DSA systems. Such DSA systems, managed by the DSASAs, will be accessed by licence-exempt DSA devices to identify frequencies available for use in their respective geographical areas.

4 Background

This section provides background information for WSDBAs and AFCSAs.

4.1 Background for WSDBAs

In October 2012, ISED released SMSE-012-12, [Framework for the Use of Certain Non-Broadcasting Applications in the Television Broadcasting Bands Below 698 MHz](#), allowing

the operation of licence-exempt white-space devices (WSDs) in the white space frequency bands. In this framework, ISED outlined general policies for the protection of licensed radio systems through the use of geolocation and the establishment of database-driven systems operated by WSDBAs. Such database-driven systems will inform WSDs which white space frequencies are available for use at the devices' desired location. The systems would also be used to register the locations of fixed WSDs as well as the protected locations and frequencies of licensed incumbent services.

Database Specification DBS-01, *White Space Database (WSDB) Specifications*, sets out the technical requirements for the designation of a White Space Database Administrator (WSDBA) and for the operation of a White Space Database (WSDB) capable of identifying available frequencies and associated maximum power levels for use by White Space Devices (WSDs) operating in the white space frequency bands.

Under the framework, any eligible applicant may seek designation by ISED to become a WSDBA, provided that it meets related technical and operational requirements. The process for this is described further in Section 9 of this document.

4.2 Background for AFCSAs

In May 2021, ISED released SMSE-006-21, [Decision on the Technical and Policy Framework for Licence-Exempt Use in the 6 GHz Band](#), allowing the operation of licence-exempt radio local area network (RLAN) devices in the 6 GHz frequency bands. In this framework, ISED outlined general policies for the protection of licensed radio systems. This includes the use of geolocation and the establishment of AFC systems operated by AFCSAs. Such database-driven systems will inform licence-exempt standard-power RLAN devices regarding the available frequencies for use at the devices' desired location. The systems would also be used to register the locations of standard-power RLAN devices as well as the protected locations and frequencies of licensed incumbent services.

Database Specification DBS-06, *Automated Frequency Coordination (AFC) System Specifications for the 6 GHz (5925-6875 MHz) Frequency Band*, sets out the technical requirements for the designation of an Automated Frequency Coordination System Administrator (AFCSA) and for the operation of an AFC system capable of identifying available frequencies and associated maximum power levels for use by standard-power radio local area network (RLAN) devices (standard-power access points and fixed client devices) operating in the 6 GHz frequency band.

Under the framework of DBS-06, any eligible applicant may seek designation by ISED to become an AFCSA, provided that it meets related technical and operational requirements. The process for this is described further in Section 9 of this document.

5 Definitions

Automated frequency coordination system administrator (AFCSA): A third-party service provider designated by ISED to administer an AFC system within Canada.

Automated frequency coordination (AFC) system: An ISED-designated database-driven system that maintains records of protected licensed systems operating in the 6 GHz frequency bands, as outlined in the DBS-06 standard (see section 6.2 of this document). The AFC system determines a list of available frequencies and associated maximum power levels for use by a standard-power RLAN device at a specific time and geographic location.

Available frequencies: A range of frequencies that are deemed by a DSA system as available for use by licence-exempt DSA devices at a specific time and geographic location.

Dynamic spectrum access (DSA) system: A database-driven system, an AFC system or a WSDB, that maintains records of protected licensed systems in a given frequency range and determines a list of available frequencies in that range for use by licence-exempt DSA devices at a specific time and geographic location.

Dynamic spectrum access (DSA): A technique by which a radio system dynamically adapts to the local radio spectrum environment in order to determine, and then access, available spectrum at specific locations and at specific times.

Dynamic spectrum access system administrator (DSASA): A third-party service provider designated by ISED, as an AFCSA or a WSDBA, to administer a DSA system within Canada.

Licence-exempt dynamic spectrum access (DSA) device: A licence-exempt device designed to operate under the control of a DSA system.

Standard-power radio local area network (RLAN) device: A licence-exempt device designed to operate under the control of an AFC system on a license-exempt basis on available frequencies in the 6 GHz frequency bands, as outlined in the RSS-248 standard (see section 6.2 of this document).

White space database (WSDB): An ISED-designated database-driven system that maintains records of protected licensed systems operating in the white space frequency bands, as outlined in the DBS-01 standard (see section 6.1 of this document). The WSDB determines a list of available frequencies and associated maximum power levels for use by a WSD at a specific time and geographic location.

White space database administrator (WSDBA): A third-party service provider designated by ISED to administer a WSDB within Canada.

White space device (WSD): A licence-exempt device designed to operate under the control of a WSDB on a license-exempt basis on available frequencies in the white space frequency bands, as outlined in the RSS-222 (see section 6.1 of this document).

6 Related documents

All spectrum-related documents referred to in this paper are available on ISED's [Spectrum Management and Telecommunications](#) website. Additional information and references related

to DSA systems are available on ISED's [Dynamic Spectrum Access](#) webpage. Refer to the following documents as needed:

6.1 WSDDB related documents

- DBS-01 [White Space Database \(WSDDB\) Specifications](#)
- RSS-222 [Radio Standards Specification on White Space Devices \(WSDs\)](#)
- SMSE-012-12 [Framework for the Use of Certain Non-Broadcasting Applications in the Television Broadcasting Bands Below 698 MHz](#)

6.2 AFC system related documents

- DBS-06 [Automated Frequency Coordination \(AFC\) System Specifications for the 6 GHz Frequency Band \(5925-6875 MHz\)](#)
- RSS-248 [Radio Local Area Network \(RLAN\) Devices Operating in the 5925-7125 MHz Band](#)
- SMSE-006-21 [Decision on the Technical and Policy Framework for Licence-Exempt Use in the 6 GHz Band](#)

6.3 Other relevant documents

[Access to Information Act](#)

[Personal Information Protection and Electronic Documents Act \(PIPEDA\)](#)

7 Eligibility

Any prospective DSASA is eligible to apply for designation by ISED. Prior to being designated, applicants shall follow the procedures and demonstrate that they meet all requirements set out in this document.

In order to be eligible for designation, a prospective DSASA shall establish and maintain a business office and duly delegated personnel/representatives within Canada. Additionally, the main elements of each DSA system essential to the operational control of spectrum access and interference shall [be hosted within Canada, and] be available for assessment by ISED during the system evaluation and testing phase. ISED will assess, on a case-by-case basis, whether the essential elements of the DSA system are operating effectively.

8 Access to ISED's licensing information

During the development process of the DSA system, access to ISED's licensing information is required. Access to the ISED licensing information is available on the [Spectrum Management System \(SMS\) Data](#) webpage. Refer to the 'White Space Data Extract' and the '6 GHz Band

Data Extract for AFC systems' sections for the information required by WSDBs and AFC systems, respectively.

9 DSASA designation process

There are three key phases to the DSASA designation process: the application; the evaluation and testing; and the designation for operation in Canada. The applicant will need ISED's approval before moving onto the next phase of the DSASA designation process. The following sections provide a description of the process.

9.1 DSASA application phase

Applications received for designation as a WSDBA or an AFCSA will be assessed on a first-come, first-served basis. Applications should be directed to the point of contact identified in Section 18 of this document.

9.1.1 Application receipt

In order for the application to be received by ISED and considered for designation status, applicants shall submit the required and complete applicant and system information listed in Annex A and Annex B.

A key information item will be the demonstration of sufficient technical expertise to establish and administer a DSA system in accordance with the requirements outlined in the appropriate Database Specification (DBS) standard.

Applicants are encouraged to consult with ISED (contact information in Section 18) prior to submitting an application, to ensure that all required information has been sufficiently addressed.

9.1.2 Application review

ISED will only evaluate complete applications. Should insufficient information be provided, or other problems arise due to missing or inconsistent information, the applicant will be contacted to provide clarification or supplementary information.

ISED will review submitted information against the application requirements of this document and the appropriate DBS document. Only applicants that meet the requirements of both documents (CPC and DBS) will be eligible to become a designated DSASA.

9.2 DSA system evaluation and testing phase

Once the application phase has been completed and the submitted information is approved by ISED, the DSASA moves to the evaluation and testing phase.

During the evaluation and testing phase, the DSASA shall first test its DSA system according to the test plan submitted under item B.1 of Annex B and approved by ISED. The DSASA shall

demonstrate that its DSA system meets the requirements of the appropriate DBS document by successfully completing all the test cases included in the test plan and sharing the results with ISED for review.

Once the DSASA's test results have been reviewed and approved by ISED, the DSASA shall provide ISED with access to a test environment of its DSA system. ISED will then evaluate and test the DSA system to ensure that it complies with the requirements set out in the appropriate DBS document. Should insufficient information be provided or inconsistencies or errors arise when evaluating the DSA system against the appropriate DBS document, the applicant will be contacted to provide clarifications, provide supplementary information, or make modifications to the DSA system.

As part of the evaluation and testing phase, ISED may require additional access to certain elements of the DSA system, certain functions performed by the DSA system, and/or intermediate values obtained from internal calculations performed by the DSA system, including but not limited to geographical values describing the protected geographical areas around licensed radio systems. Additionally, ISED may require the DSASA to provide detailed examples of calculations performed by the DSA system.

9.3 DSASA designation phase

Once the DSA system evaluation and testing phase has been completed and approved by ISED, the next phase is to designate the DSASA either as a WSDBA or an AFCSA.

9.3.1 Execution of the DSASA designation agreement

Following successful evaluation and testing, ISED shall arrange the execution of a designation agreement in the appropriate sample format outlined in Annex C.

9.3.2 Letter of designation

Upon successful completion of the application phase, system evaluation and testing phase, and execution of the designation agreement, ISED shall issue a letter of designation to the successful applicant in the sample format outlined in section C.3 of Annex C.

10 Website listing

Lists of all designated DSASAs will be made available on ISED's [Dynamic Spectrum Access](#) webpage.

11 Non-disclosure of data

This section and its subsections provide information on the non-disclosure of data from the applicant's side and from ISED's side.

11.1 Non-disclosure of particular applicant data

DSASA applicants shall indicate if information submitted in support of their designation application is to be considered confidential or proprietary in nature.

11.2 Non-disclosure of particular licensing data

The operation of a DSA system may require access to confidential ISED licensing information that is not part of the public data extract for the purposes of ensuring the protection of licensed radio systems that are not disclosed in the published SMS data. If such confidential information is required, ISED will provide designated DSASAs with access to a secure version of the SMS data.

12 Disclaimer

ISED's designation of a DSASA does not imply or otherwise suggest promotion or recommendation of the services offered by the DSASA, nor does the designation imply or suggest that the DSASA is an agent or otherwise representative of ISED.

13 Retaining designation status

In order to maintain its designation status, a DSASA shall, on an ongoing basis, meet all requirements of the terms and conditions of the executed DSASA designation agreement with ISED, including modifications to technical and operational requirements as indicated by ISED. This section and its subsections provide information on the process for retaining designation due to new technical and/or operational requirements.

13.1 Retaining designation due to new technical and/or operational requirements

If the DSA system technical and/or operational requirements are modified, e.g. upon the publication of a new issue of a DBS document, DSASAs wishing to retain their designation status shall take the required steps, if any, to update their DSA system with the new requirements and shall submit an application to ISED for retaining the designation under the new requirements following the same process as outlined in section 9.1.

The application for retaining designation under new requirements is subject to review and approval by ISED and shall:

- Demonstrate the DSASA's intention to maintain its designation status and to align with the new requirements
- Provide a description of any changes made to the DSA system to align it with the new requirements along with an estimated timeline for the changes to be completed
- Provide a description of any changes and/or updates to the latest applicant information (Annex A) previously submitted to ISED
- Provide a description of any changes and/or updates to the latest system information (Annex B) previously submitted to ISED

Should insufficient information be provided, the applicant will be contacted to provide clarification or supplementary information. ISED can require evaluation and testing of the DSA system in certain cases where ISED determines that the changes are significant enough for testing to be warranted.

13.1.1 Evaluation and testing due to new technical and/or operational requirements

Once the application for retaining designation is approved by ISED, the DSASA moves to the evaluation and testing phase, if needed, following the same process outlined in section 9.2. ISED will ensure that the DSA system complies with the new operational and/or technical requirements. ISED may perform additional testing of other elements of the DSA system to ensure that it maintains compliance with all other requirements set out in the appropriate DBS document.

13.1.2 Reconfirming DSASA designation due to new technical and/or operational requirements

Once the DSA system evaluation and testing phase has been completed and approved by ISED, the next phase is to reconfirm the continuation of the designation of the DSASA under the new rules. It is anticipated that in most cases, the designation agreement already in place with the DSASA would not be affected by new technical and/or operational requirements and shall thus continue to remain in effect.

Upon successful eligibility for continuation of the designation, ISED will issue a letter of continuation of designation to the DSASA. This will be based on the appropriate sample letter of continuation of designation provided in Section C.4 of Annex C.

14 Interference resolution procedures

In cases of harmful interference¹ to protected radio systems or services suspected to be caused by a licence-exempt DSA device, the radio user experiencing such interference should report the problem to its nearest ISED Spectrum Management office. A list of ISED's offices is provided in Radiocommunication Information Circular [RIC-66, Addresses and Telephone Numbers of District Offices](#). The procedure for investigating suspected harmful interference to authorized radiocommunication systems is set out in Section 5 of ISED's [Spectrum Management Service Standards](#).

After confirming that the source of interference is a particular licence-exempt DSA device, ISED may issue to the operator of the device a notice pursuant to paragraph 5(1)(l) of the *Radiocommunication Act* to cease or modify operation of this device immediately. Should the operator of the interference-causing licence-exempt DSA device fail to comply with this notice

¹ In accordance with the *Radiocommunication Act*, harmful interference is defined as “an adverse effect of electromagnetic energy from any emission, radiation or induction that (a) endangers the use or functioning of a safety-related radiocommunication system, or (b) significantly degrades or obstructs, or repeatedly interrupts, the use or functioning of radio apparatus or radio-sensitive equipment.”

and/or is found to be non-compliant with technical requirements outlined in the appropriate Radio Standards Specification (RSS), ISED will require the device owner to immediately cease operation of the device in question. In this case, ISED may also require the DSASA, upon receipt of a written request from ISED, to cease to provide available frequencies to the interference-causing DSA device.

In addition, ISED will require the DSASA to take appropriate corrective actions to resolve interference concerns linked to the following:

- operating problems or deficiencies of a designated DSA system; and/or
- a designated DSA system's failure to meet technical or operational requirements as set out in this document and the appropriate DBS document.

It should be noted that failure to comply with ISED's interference mitigation requests may result in the revocation of a DSASA's designation status.

15 Revocation of designation and redesignation

This section and its subsections outline the conditions where ISED may decide to revoke the designation of a DSASA. ISED's revocation procedure of the DSASA designation will follow the terms set out in the Agreement with the DSASA.

15.1 Revocation due to a breach of the agreement

It should be noted that ISED may revoke the designation of a DSASA due to non-compliance with ISED requirements, or failure to comply with ISED's interference mitigation requests.

15.2 Redesignation after revocation

A DSASA whose designation status has been revoked (according to sections 15.1, 15.2 and 15.3) and who wishes to be redesignated shall submit a formal application for redesignation to ISED following the process outlined in section 9. If the revocation was due to a breach of the agreement, a DSASA may reapply for redesignation once the causes leading to the revocation have been eliminated to the satisfaction of ISED.

16 Cancellation of the designation due to termination of the agreement upon joint consent

Upon joint consent by ISED and the DSASA to terminate the agreement, ISED will cancel the DSASA designation by removing the DSASA from the list of designated DSASAs.

17 Auditing procedure

ISED may audit a DSASA's DSA system operations at any time to ensure compliance with agreement's terms and conditions, including technical and operational requirements. Designated DSASAs shall provide ISED with any requested information or documentation as

required for completion of such an audit within 30 calendar days of the date of the initial request.

Where it is determined by ISED that a DSASA is not in compliance, immediate corrective actions shall be taken by the DSASA to the satisfaction of ISED in order to maintain designation status. Failure to take such corrective actions, within the time period specified by ISED, may result in ISED's suspension or revocation of the designation status.

A DSASA whose designation status has been revoked by ISED will be removed from ISED's list of designated DSASAs.

18 Contact information

All application submissions and/or enquiries concerning application procedures and requirements should be directed to the office of:

Directorate of Coordination and Terrestrial Engineering (DCTE)
Innovation, Science and Economic Development Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5

Email: dynamicspectrumaccess-accesdynamiqueauspectre@ised-isde.gc.ca

Annex A – Required DSASA applicant information

- A.1** The applicant shall provide a list of the appropriate contact information of its personnel responsible for the application, including full names, telephone numbers, email addresses, and mailing addresses.
- A.2** The applicant shall provide a copy of the certificate of incorporation for the applicant, including any bylaws, addenda and appendices. This is not required if such information has already been provided to ISED and this information remains unchanged.
- A.3** The applicant shall provide a description of the applicant's corporate business structure and identify any existing or anticipated business partners or affiliates.
- A.4** The applicant shall provide the street address of its business office in Canada and the contact information, including mailing addresses, of the individuals delegated as its personnel/representatives in Canada.
- A.5** The applicant shall provide the geographic locations [within Canada] where elements of the DSA system are located.
- A.6** The applicant shall indicate anticipated milestone dates for DSA system development (if any), and the expected date for bringing the proposed DSA system into full operation.

Annex B – Required DSA system information

- B.1** The applicant shall provide a test plan, including specific test cases intended to demonstrate how the DSA system will meet all requirements outlined in the appropriate DBS document. The test plan is subject to review and approval by ISED.
- B.2** The applicant shall provide a description of any alternate methodologies and/or optional requirements, if permitted in the appropriate DBS document, which were drawn upon. If the applicant chose to implement an alternate methodology, they shall provide a description of their implementation and demonstrate that it is based on sound and standard engineering practices and ensures the appropriate protection of licensed radio systems.
- B.3** The applicant shall provide technical diagrams illustrating the architecture of the DSA system, and a detailed description of how each function operates and interacts with other functions. The applicant shall also identify each element in the system architecture that is essential to operational and interference control. In addition, the applicant shall indicate where such essential elements are located or hosted.
- B.4** The applicant shall include a description of the methods (e.g. interfaces, protocols) that will be used for secure communication between the DSA system and its associated licence-exempt DSA devices and the procedures, if any, which it plans to use to verify that communication is effective.
- B.5** The applicant shall include a description of the security methods that will be used to protect against unauthorized parties accessing or altering system information or otherwise corrupting the operation of the system in the performance of its intended functions.
- B.6** The applicant shall provide a detailed description of any open-source software used in their DSA system and demonstrate that its use is based on sound and standard engineering practices and that it was developed with sufficient technical expertise.
- B.7** If the applicant will not be performing all system functions, they shall provide information on all other entities performing these functions, and their business relationship to the applicant. In particular, the applicant shall address how ISED will be assured that all requirements of designated system administration are satisfied when functions are divided among multiple entities, including a description of how data will be transferred among various entities and other systems, and the expected schedule of such data transfers.

Annex C – DSASA designation phase

If a DSASA application is accepted by ISED and its evaluation proves successful, the DSASA applicant will then be required to sign a designation agreement with ISED before it can be designated by the Minister. Following the execution of the designation agreement, a designation letter is issued to the DSASA. If the DSASA has been previously designated, a redesignation letter is issued instead.

Sections C.1 and C.2 below include sample of text proposed to be included in the designation agreement with the WSDBA or AFCSA, respectively, denoting typical requirements, terms and conditions.

Sections C.3 and C.4 below include sample of text proposed to be included in the designation or redesignation letter, respectively, issued to the WSDBA or AFCSA.

DRAFT

C.1 Sample WSDBA agreement, terms and conditions

This agreement is between ISED and [Company Ltd.], hereinafter referred to as the WSDBA.

The WSDBA representative indicated below certifies that he/she has the authority to bind the WSDBA which agrees, for good and valid consideration, the receipt and sufficiency of which is hereby acknowledged, to abide by all of the terms and conditions herein.

WSDBA Agreement Terms and Conditions

- (1) The WSDBA certifies that all information submitted to Innovation, Science and Economic Development Canada (ISED) in relation to its designation application to be accurate and complete, and that it will promptly (but in no event later than 30 calendar days subsequently) notify ISED if it becomes aware of any material change in this information. It is a breach of this Agreement to knowingly provide inaccurate information or to fail to disclose a material change to ISED.
- (2) The WSDBA has a business office located in Canada and delegated individual(s) as representatives in Canada, and agrees to maintain one or more delegated individuals as its personnel/representatives in Canada at all times. The delegated individuals, their contact information and their mailing addresses are set out in Schedule "A" to this Agreement. The personnel/representatives will provide public contact information and strive to provide timely responses to complaints or enquiries from customers, equipment manufacturers, spectrum users, ISED or any other party.
- (3) Any requests for information from the WSDBA or notices to the WSDBA under this Agreement may be sent to the coordinates set out in Schedule "A" via standard mail or email as appropriate. Any information that the WSDBA is required to forward to ISED may be sent via standard mail to 235 Queen Street, Ottawa, Ontario K1A 0H5 or via email at dynamicspectrumaccess-accesdynamiqueauspectre@ised-isde.gc.ca. Information provided pursuant to this Agreement may be exchanged either by standard mail or by email. Both parties shall notify each other of any relevant change in mailing addresses, delegated individuals or other contact information.
- (4) The parties agree that, irrespective of the hosting location of the WSDB, the laws of the Province/Territory in which the WSDBA's business office is physically located shall apply to this Agreement.
- (5) The WSDBA shall not promote its designation status to provide WSDB services beyond the scope of this Agreement, nor indicate that it is an agent or representative of ISED or the Government of Canada. This does not limit the WSDBA from providing additional value-added services outside the scope of this designation.
- (6) The WSDBA may charge fees for providing the frequency availability and associated power levels to WSDs. ISED may review the fees upon such request. ISED may request modifications to the fees if ISED finds them unreasonable.

- (7) The WSDBA shall provide every WSD under the control of the WSDB with the full list of available frequencies and associated power levels, without discrimination based on its business model.
- (8) The WSDBA is not permitted to charge fees for the registration of licensed stations (e.g. low power apparatus and TV receive sites) to the WSDB.
- (9) The WSDBA agrees that it will comply on an ongoing basis with all eligibility, technical and operational requirements, as set out in this document and in DBS-01, White Space Database Specifications, as amended from time to time. In addition, the WSDBA must keep abreast of all relevant ISED regulations, policies, procedures, requirements, standards and specifications and amendments thereto related to the operation of WSDs and WSDBs in Canada. This may include active participation in evaluation tests, discussion groups, meetings, or teleconferences established as deemed necessary by ISED to facilitate or address WSDB issues.
- (10) The WSDBA shall strive to maintain continuous operation of the WSDB and provide notification to its customers and ISED when it becomes temporarily unavailable (both planned and unplanned).
- (11) The WSDBA shall make publicly available all information required by ISED related to the locations and parameters of operations of registered WSDs and of voluntarily submitted protected systems (e.g. low-power apparatus and TV receive sites); this requirement excludes personal contact information. The WSDBA is not permitted to charge fees for the public examination of this information.
- (12) The WSDBA shall permit any licensee to examine the WSDB's calculation results, including any system contours and results from the calculation of available frequencies at particular locations, pertaining to the protection of the licensed radio systems of that licensee.
- (13) The WSDBA shall not make publicly available the individual location of personal/portable WSDs.
- (14) The WSDBA agrees that any licensing information that ISED designates as confidential, shall not be disclosed to any other person without the express written consent of ISED. Furthermore the WSDBA agrees that it shall take steps to keep any such confidential information secure and shall only allow its sharing and use by its own employees, agents or contractors as necessary in order to administer its operations under this Agreement.
- (15) The WSDBA shall not compromise the privacy of users of its services at any time. Any time the WSDBA collects, uses or discloses personal information in the course of commercial activity, including transfer for third party processing, it must comply with the relevant portions of the Personal Information Protection and Electronic Documents Act (PIPEDA) or substantially similar Provincial/Territorial legislation, where applicable.

Application Procedures for Dynamic Spectrum Access System Administrators (DSASAs) CPC-4-1-01

- (16) Unless otherwise stated in this Agreement, the WSDBA is not required to disclose any information that it may collect to support additional services.
- (17) ISED may audit or investigate compliance with terms and conditions of this Agreement at any time, and the WSDBA shall be required to provide any information or documentation as required, typically within 30 calendar days of the date of request.
- (18) The WSDBA agrees to cooperate with ISED in any review or audit of its WSDB operations, and to provide any information that ISED may request in order to ensure compliance.
- (19) The WSDBA will address all complaints forwarded to it by ISED regarding potential non-compliance with terms of designation, will implement the necessary corrective action(s) and will report back to ISED within 30 calendar days. Failure to reply in a satisfactory and timely manner will be considered by ISED as a potential breach of this agreement.
- (20) The WSDBA shall provide ISED with access to detailed logs of WSD queries and responses (including those that are personally identifiable) contained in its WSDB, for the purposes of evaluation and enforcement. Upon formal written request from ISED, the WSDBA may also be required to implement interference mitigation measures, including ceasing to provide available frequencies to a particular WSD or within a specified area.
- (21) The WSDBA shall permit ISED to examine its repository of incumbent licensee information obtained from ISED's Spectrum Management System and any other information registered with the WSDB (e.g. WSD registration information) to allow for the detection and correction of errors, resulting either from an inadvertent entry of incorrect data or as a result of a deliberate entry of false data in the WSDB.
- (22) In addition to any other reporting requirements, the WSDBA will provide ISED, by March 31 each year and also upon ISED's request, with a report and statistical information regarding overall WSDB performance, operational issues, developments, complaints or inquiries received, including the timing and content of responses provided and efforts at resolution and incidents of WSDs causing interference with licensed radio systems. This report shall address the above-noted matters for the previous calendar year, and will be provided to ISED in a suitable format for assessment.
- (23) Where it is determined by ISED that a WSDBA is not in compliance with the terms and conditions of this Agreement, the WSDBA must take immediate corrective action, to the satisfaction of ISED, in order to maintain designation status. Failure to take such corrective action may result in ISED's suspension or revocation of the WSDBA's designation status.
- (24) Without prejudice to any other remedies available at law, in the event of any breach of this Agreement by the WSDBA, ISED may take any or all of the following actions:
 - a. provide notice of the breach and a timeline within which the breach must be remedied;

- b. enforce the terms of this Agreement via a court order;
 - c. require that the WSDBA provide a separate enforceable undertaking to do or refrain from doing something under this Agreement;
 - d. declare that this Agreement is terminated with or without the consent of the WSDBA; and
 - e. revoke the designation of the WSDBA.
- (25) In the event that the WSDBA terminates its operation, or where this agreement is terminated, the WSDBA will transfer its WSDB along with the IP addresses and URLs used to access the WSDB and list of registered WSDs, to another designated WSDBA or to ISED, at ISED's discretion.
- (26) In the case where a WSDBA designation status has been revoked by ISED or where this Agreement is terminated, the WSDBA will be removed from ISED's list of designated WSDBAs.
- (27) The WSDBA and ISED may terminate this Agreement upon joint consent, or upon provision of 90 calendar days' advance notice by either the WSDBA or ISED. In addition, ISED may terminate this Agreement at any time upon confirmation of breach of terms or conditions of this Agreement by the WSDBA, in accordance with paragraph 23 (d) above. Upon termination of this Agreement, the WSDBA shall transfer its WSDB data to another designated WSDBA consistent with paragraph 24 above.
- (28) This Agreement may be amended in writing upon consent of both parties.
- (29) The invalidity or unenforceability of any provision of this Agreement shall not affect the validity and enforceability of any other provision of this Agreement, which shall remain in full force and effect.

Dated at [location] this [day]
Day of [month], [year]

Dated at [location] this [day]
Day of [month], [year]

Martin Proulx
Director General, Engineering Planning
and Standards
Spectrum and Telecommunications Sector
Innovation, Science and Economic
Development Canada

[Mr. John Doe / Ms. Jane Doe]
[CEO/Director]
[Company Ltd.]

Schedule “A”

Business Office of WSDBA

[Company Ltd.]
[Address]

Attention: [delegated individual]
Email: [email address]
Phone: [phone number]

C.2 Sample AFCSA agreement, terms and conditions

This agreement is between ISED and [Company Ltd.], hereinafter referred to as the AFCSA.

The AFCSA representative indicated below certifies that he/she has the authority to bind the AFCSA which agrees, for good and valid consideration, the receipt and sufficiency of which is hereby acknowledged, to abide by all of the terms and conditions herein.

AFCSA Agreement Terms and Conditions

- (1) The AFCSA certifies that all information submitted to Innovation, Science and Economic Development Canada (ISED) in relation to its designation application to be accurate and complete, and that it will promptly (but in no event later than 30 calendar days subsequently) notify ISED if it becomes aware of any material change in this information. It is a breach of this Agreement to knowingly provide inaccurate information or to fail to disclose a material change to ISED.
- (2) The AFCSA has a business office located in Canada and delegated individual(s) as representatives in Canada, and agrees to maintain one or more delegated individuals as its personnel/representatives in Canada at all times. The delegated individuals, their contact information and their mailing addresses are set out in Schedule “A” to this Agreement. The personnel/representatives will provide public contact information and strive to provide timely responses to complaints or enquiries from customers, equipment manufacturers, spectrum users, ISED or any other party.
- (3) Any requests for information from the AFCSA or notices to the AFCSA under this Agreement may be sent to the coordinates set out in Schedule “A” via standard mail or email as appropriate. Any information that the AFCSA is required to forward to ISED may be sent via standard mail to 235 Queen Street, Ottawa, Ontario K1A 0H5 or via email at dynamicspectrumaccess-accesdynamiqueauspectre@ised-isde.gc.ca. Information provided pursuant to this Agreement may be exchanged either by standard mail or by email. Both parties shall notify each other of any relevant change in mailing addresses, delegated individuals or other contact information.

- (4) The parties agree that, irrespective of the hosting location of the AFC system, the laws of the Province/Territory in which the AFCSA's business office is physically located shall apply to this Agreement.
- (5) The AFCSA shall not promote its designation status to provide AFC system services beyond the scope of this Agreement, nor indicate that it is an agent or representative of ISED or the Government of Canada. This does not limit the AFCSA from providing additional value-added services outside the scope of this designation.
- (6) The AFCSA may charge fees for providing the frequency availability and associated power levels to standard-power RLAN devices. ISED may review the fees upon such request. ISED may request modifications to the fees if ISED finds them unreasonable.
- (7) The AFCSA shall provide every standard-power RLAN device under the control of the AFC system with the full list of available frequencies and associated power levels, without discrimination based on its business model.
- (8) The AFCSA agrees that it will comply on an ongoing basis with all eligibility, technical and operational requirements, as set out in this document and in DBS-06, *Automated Frequency Coordination (AFC) System Specifications for the 6 GHz Frequency Band (5925-6875 MHz)*, as amended from time to time. In addition, the AFCSA must keep abreast of all relevant ISED regulations, policies, procedures, requirements, standards and specifications and amendments thereto related to the operation of standard-power RLAN devices and AFC systems in Canada. This may include active participation in evaluation tests, discussion groups, meetings, or teleconferences established as deemed necessary by ISED to facilitate or address AFC system issues.
- (9) The AFCSA shall strive to maintain continuous operation of the AFC system and provide notification to its customers and ISED when it becomes temporarily unavailable (both planned and unplanned).
- (10) The AFCSA shall make publicly available all information required by ISED related to the locations and parameters of operations of registered standard-power RLAN devices; this requirement excludes personal contact information. The WSDBA is not permitted to charge fees for the public examination of this information.
- (11) The AFCSA shall permit any licensee to examine the AFC system's calculation results, including any exclusion zones and results from the calculation of available frequencies at particular locations, pertaining to the protection of the licensed radio systems of that licensee.
- (12) The AFCSA agrees that any licensing information that ISED designates as confidential, shall not be disclosed to any other person without the express written consent of ISED. Furthermore the AFCSA agrees that it shall take steps to keep any such confidential information secure and shall only allow its sharing and use by its own employees, agents or contractors as necessary in order to administer its operations under this Agreement.

- (13) The AFCSA shall not compromise the privacy of users of its services at any time. Any time the AFCSA collects, uses or discloses personal information in the course of commercial activity, including transfer for third party processing, it must comply with the relevant portions of the Personal Information Protection and Electronic Documents Act (PIPEDA) or substantially similar Provincial/Territorial legislation, where applicable.
- (14) Unless otherwise stated in this Agreement, the AFCSA is not required to disclose any information that it may collect to support additional services.
- (15) ISED may audit or investigate compliance with terms and conditions of this Agreement at any time, and the AFCSA shall be required to provide any information or documentation as required, typically within 30 calendar days of the date of request.
- (16) The AFCSA agrees to cooperate with ISED in any review or audit of its AFC system operations, and to provide any information that ISED may request in order to ensure compliance.
- (17) The AFCSA will address all complaints forwarded to it by ISED regarding potential non-compliance with terms of designation, will implement the necessary corrective action(s) and will report back to ISED within 30 calendar days. Failure to reply in a satisfactory and timely manner will be considered by ISED as a potential breach of this Agreement.
- (18) The AFCSA shall provide ISED with access to detailed logs of queries and responses (including those that are personally identifiable) contained in its AFC system, for the purposes of evaluation and enforcement. Upon formal written request from ISED, the AFCSA may also be required to implement interference mitigation measures, including ceasing to provide available frequencies to a particular standard-power RLAN device or within a specified area.
- (19) The AFCSA shall permit ISED to examine its repository of incumbent licensee information obtained from ISED's Spectrum Management System and any other information registered with the AFC system (e.g. standard-power RLAN device registration information) to allow for the detection and correction of errors, resulting either from an inadvertent entry of incorrect data or as a result of a deliberate entry of false data in the AFC system.
- (20) In addition to any other reporting requirements, the AFCSA will provide ISED, by March 31 each year and also upon ISED's request, with a report and statistical information regarding overall AFC system performance, operational issues, developments, complaints or enquiries received, including the timing and content of responses provided and efforts at resolution and incidents of standard-power RLAN devices causing interference with licensed radio systems. This report shall address the above-noted matters for the previous calendar year, and will be provided to ISED in a suitable format for assessment.
- (21) Where it is determined by ISED that an AFCSA is not in compliance with the terms and conditions of this Agreement, the AFCSA must take immediate corrective action, to the

satisfaction of ISED, in order to maintain designation status. Failure to take such corrective action may result in ISED's suspension or revocation of the AFCSA's designation status.

- (22) Without prejudice to any other remedies available at law, in the event of any breach of this Agreement by the AFCSA, ISED may take any or all of the following actions:
- a. provide notice of the breach and a timeline within which the breach must be remedied;
 - b. enforce the terms of this Agreement via a court order;
 - c. require that the AFCSA provide a separate enforceable undertaking to do or refrain from doing something under this Agreement;
 - d. declare that this Agreement is terminated with or without the consent of the AFCSA; and
 - e. revoke the designation of the AFCSA.
- (23) In the event that the AFCSA terminates its operation or where this agreement is terminated, the AFCSA will transfer its AFC system along with the IP addresses and URLs used to access the AFC system and list of registered standard-power RLAN devices, to another designated AFCSA or to ISED, at ISED's discretion.
- (24) In the case where a AFCSA's designation status has been revoked by ISED or where this Agreement is terminated, the AFCSA whose designation status has been revoked by ISED will be removed from ISED's list of designated AFCSAs.
- (25) The AFCSA and ISED may terminate this Agreement upon joint consent, or upon provision of 90 calendar days' advance notice by either the AFCSA or ISED. In addition, ISED may terminate this Agreement at any time upon confirmation of breach of terms or conditions of this Agreement by the AFCSA, in accordance with paragraph 22 (d) above. Upon termination of this Agreement, the AFCSA shall transfer its AFC system data to another designated AFCSA consistent with paragraph 23 above.
- (26) This Agreement may be amended in writing upon consent of both parties.
- (27) The invalidity or unenforceability of any provision of this Agreement shall not affect the validity and enforceability of any other provision of this Agreement, which shall remain in full force and effect.

Dated at [location] this [day]
Day of [month], [year]

Dated at [location] this [day]
Day of [month], [year]

Martin Proulx
Director General, Engineering Planning
and Standards
Spectrum and Telecommunications Sector

[Mr. John Doe / Ms. Jane Doe]
[CEO/Director]
[Company Ltd.]

Innovation, Science and Economic
Development Canada

Schedule “A”

Business Office of AFCSA

[Company Ltd.]
[Address]

Attention: [delegated individual]
Email: [email address]
Phone: [phone number]

C.3 Sample DSASA designation letter

[Date]

[Company Ltd.]
[Mr. John Doe / Ms. Jane Doe], [CEO/Director]
[Address]

Dear [Mr. John Doe / Ms. Jane Doe]:

This letter certifies that [designated DSASA’s name] is designated by ISED to operate a [WSDB or AFC system] in Canada.

This designation is subject to the conditions outlined in Client Procedures Circular CPC-4-1-01, *Application Procedures for Dynamic Spectrum Access System Administrators (DSASAs)* and Database Requirements [DBS-01, *White Space Database (WSDB) Specifications* or DBS-06, *Automated Frequency Coordination (AFC) System Specifications for the 6 GHz Frequency Band (5925-6875 MHz)*], as well as the [“WSDBA Agreement” or “AFCSA Agreement”] as signed by the applicant on [date].

Your designated [WSDBA or AFCSA] identification number is: [WSDBA or AFCSA ID number].

Thank you for participating in this important function for the successful deployment of [white space devices or standard-power RLAN devices] in Canada.

Martin Proulx
Director General, Engineering Planning and Standards
Spectrum and Telecommunications Sector
Innovation, Science and Economic Development Canada

C.4 Sample DSASA continuation of designation letter

[Date]

[Company Ltd.]

[Mr. John Doe / Ms. Jane Doe], [CEO/Director]

[Address]

Dear [Mr. John Doe / Ms. Jane Doe]:

This letter confirms that ISED continues to designate [designated DSASA's name] as a [WSDB or AFC system] operator in Canada. Your designated [WSDBA or AFCSA] identification number is: [WSDBA or AFCSA ID number].

ISED has completed an evaluation of the [WSDB or AFC system] operated by [designated DSASA's name], and has determined that the [WSDB or AFC system] meets [description of new requirements].

This designation is subject to the conditions outlined in Client Procedures Circular CPC-4-1-01, *Application Procedures for Dynamic Spectrum Access System Administrators (DSASAs)* and Database Requirements [DBS-01, *White Space Database (WSDB) Specifications* or DBS-06, *Automated Frequency Coordination (AFC) System Specifications for the 6 GHz Frequency Band (5925-6875 MHz)*], as well as the ["WSDBA Agreement" or "AFCSA Agreement"] as signed by the applicant on [date].

Thank you for participating in this important function for the successful deployment of [white space devices or standard-power RLAN devices] in Canada.

Martin Proulx

Director General, Engineering Planning and Standards

Spectrum and Telecommunications Sector

Innovation, Science and Economic Development Canada