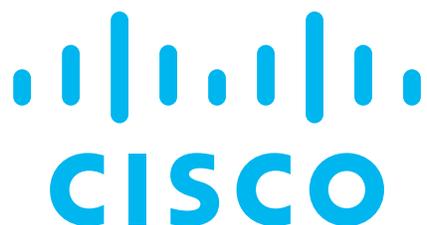


Canada Gazette Notice No. SMSE-002-17

Consultation on the Technical and Policy  
Framework for Radio Local Area Network  
Devices Operating in the 5150-5250 MHz  
Frequency Band

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Reply Comments of



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## **I. Introduction**

Cisco Systems, Inc. (Cisco) hereby provides its reply comment in the above-captioned proceeding. In Cisco's view, commenters opposing expanded use of unlicensed Wireless Access Systems/Radio Local Area Network (RLAN) devices in the 5150-5250 MHz band failed to: (a) acknowledge the flexibility nations have under International Telecommunications Union (ITU) treaty obligations to adjust RLAN mitigations as a matter of domestic policy; (b) explain how the proposed technical mitigations would be insufficient to protect incumbent services; and (c) failed to rebut the strong factual record of consumer demand and economic benefit. Cisco urges Innovation, Science, Economic Development Canada (ISED) to adopt final rules as soon as possible.

As our comments stated, Cisco urges ISED to change the rules for unlicensed devices in the 5150-5250 MHz band by adopting an outdoor conducted power up to 1W and subject to an elevation mask that will protect satellite incumbents. Cisco further urges ISED to improve the rules for indoor use, allowing devices to operate at higher powers indoors (master devices at 1W conducted +6dBi gain antenna or 4W EIRP, and client devices at 250mW + 6dBi gain antenna or 1W EIRP) but with no elevation mask requirement for indoor networks. Finally, for outdoor networks, Cisco urges ISED to adopt a lightly license approach to outdoor deployments of some minimum size.

**II. Delay is unnecessary; ITU requirements do not prohibit ISED action**

Parties urging that ISED delay a decision in this proceeding argue that Canada should wait to change its rules until after the World Radio Conference meets in late 2019 to address an agenda item on unlicensed use of the 5 GHz band.<sup>1</sup> Various assertions of violence to ITU processes and procedures are made: a decision would pre-judge work of the Canadian Preparatory Committee on ITU Agenda item 1.16 and Canada's ultimate position on this agenda item, a decision now could conflict with a later ITU decision, and once devices are authorized for the band and if there is interference, there is no practical way to remove them.

In Cisco's view:

- ISED has the unquestioned authority to change mitigation conditions applicable to unlicensed devices in the 5150-5250 MHz band,
- ISED is proposing to exercise that authority consistent with existing ITU regulations, and
- a decision to adopt regulations does not constitute a prejudgment of Canada's position on Agenda item 1.16 for WRC-19.

First, ITU-R Resolution 229 specifically found that sharing of 5150-5250 MHz between Wireless Access Systems including RLANs and fixed satellite is feasible.<sup>2</sup> That resolution also permits administrations to adopt interference mitigation techniques for RLAN on a domestic basis without specifying which mitigation techniques must be adopted. At "Resolves 5", the resolution states that "administrations may exercise some flexibility in adopting other

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<sup>1</sup> See generally Canadian Space Agency (CSA) Comments, Attachment at 4, NAV Canada at 1, Parscom Management at 2.

<sup>2</sup> ITU Resolution 229 (REV. WRC-12).

mitigation techniques, provided that they develop national regulations to meet their obligations to achieve an equivalent level of protection to the EESS (active) and the SRS (active) based on their system characteristics and interference criteria as stated in Recommendation ITU-R RS.1632.” Canada is therefore free under existing ITU treaty obligations to decide that a different mitigation than the existing one (e.g., indoor-only, 200 mW EIRP) better balances the government’s goals for use of radio spectrum.

Second, both ITU Radio Regulations<sup>3</sup> and the ITU Constitution<sup>4</sup> specifically permit nations to adopt domestic rules that differ from those adopted by the ITU, provided that the domestic rules do not create harmful interference to radio services and radio stations of other countries. ISED has been careful to propose mitigations so that unlicensed use of 5150-5250 MHz under a revised set of rules will not create harmful interference. No party to this proceeding has provided evidence otherwise.

Nor is there any prejudgment of Canada’s position on Agenda item 1.16 or diminishment of the Canadian government’s ability to manage its positions on this Agenda item. Resolution 239 (WRC-15) calling for studies on WAS/RLAN sharing does not override Canada’s existing authority to adjust 5 GHz mitigations that best suit its domestic policies today. Given the dearth of evidence of harmful interference, waiting for a late 2019 decision on

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<sup>3</sup> ITU Radio Regulations at Section 4.4.

<sup>4</sup> Constitution of the International Telecommunications Union at Articles 6.1 and 6.2.

Agenda item 1.16 amounts to unnecessary delay. Even if the government decided to fine tune its mitigations in 2020 or subsequently, the government is fully within its rights to change rules.

**III. No evidence has been brought forward of actual or even likely harm to incumbents**

Those parties seeking delay do so based on assertions, not factual evidence.<sup>5</sup> There is simply no explanation in this record of why the proposed mitigations will not protect incumbents. For example, Globalstar states it prefers globally harmonized rules and that it does not “believe” that US rules will protect it if US rule are promulgated elsewhere. No information is provided to help ISED understand how this belief came to be, or why it should be a concern, given the US decision in 2014 to adopt similar rules, a decision made with Globalstar’s acquiescence based on a full factual examination of the issues. CSA did not address ISED’s proposal to protect its receiving earth station with an exclusion zone, and its comments appear limited to general assertions that incumbents must be protected from harmful interference, a principle which every party in the record has already agreed is good policy. CSA raises a concern about out of band emissions into the 5250-5350 MHz band,<sup>6</sup> an issue addressed in the final rules of the US Federal Communications Commission which could easily be adapted for Canada.

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<sup>5</sup> See e.g., Globalstar Letter at 1, CSA Comments, Attachment at 1-6.

<sup>6</sup> CSA Comments, Attachment at 4-5.

Finally, the “barbarians at the gate” arguments suggesting that once devices are deployed, if interference occurs, there would be nothing that the government could do to rein in the interference, is wrong.<sup>7</sup> This argument ignores the consultation’s suggestion for a light licensing approach for outdoor systems, enabling the regulator to identify the specific organization(s) operating outdoors and to request action in response to harmful interference. It also ignores the ability to update software and firmware in devices manufactured today. In Cisco’s view, this is not an argument that ISED should find compelling.

**IV. No data rebutting overwhelming evidence of consumer demand and economic benefit**

The opposing parties also make unsubstantiated assertions that data on consumer demand or economic benefit is somehow wrong or not specific to Canada.<sup>8</sup> With respect to Cisco Visual Networking Index (VNI) data, the data Cisco provided in its comment showing Wi-Fi traffic growth is specific to Canada. The VNI has been conducted for 11 years, and during that time the VNI has emerged as the “gold standard” among regulators globally for enabling them to understand how traffic demand is changing. Each year, Cisco creates a new snapshot showing our projections for the next five years. Cisco is proud that not only regulators, but our enterprise and service provider customers, rely on the VNI for planning purposes.

**V. Conclusion**

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<sup>7</sup> CSA Comment, Attachment at 3, Parscom Comment at 3.

<sup>8</sup> Parscom Comment at 1, CSA Comments, Attachment at 4.

The comments received in response to this consultation overwhelming support adoption of rules that will promote the use of current generation Wi-Fi in Canada, by adjusting both the rules for devices and the mitigation requirements themselves. For both outdoor and indoor use, the rules should allow consumers and enterprises access to the best Wi-Fi technology. Fortunately, that access can be designed to protect incumbent services, and Cisco urges ISED to move forward consistent with our comments.

Respectfully submitted,

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