Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 0, 1, 2, and 15 of the Commission's Rules regarding Authorization of Radiofrequency Equipment	)	ET Docket No. 13–44 RM–11652
	)	
Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies	)	

COMMENTS OF CISCO SYSTEMS, INC.

Mary L. Brown
Director, Government Affairs
601 Pennsylvania Avenue, NW
9th Floor North
Washington, DC 20004
(202) 354-2923

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SUMMARY

Cisco applauds the Commission's success in implementing equipment authorization rules over the years that contribute to predictable outcomes with a high degree of transparency. The process increasingly relies on external Telecommunication Certification Bodies ("TCBs") to handle an ever-increasing load of device approvals under the supervision of a small Commission staff. This proceeding provides an opportunity to improve that process.

TCBs. Perhaps the most important proposal is to have TCBs handle all Part 2 certification applications, instead of the 98% they do now. Cisco supports the elimination of the exclusion list, allowing the TCBs to handle even the more complex categories of applications, in consultation with the Commission staff. This will expedite the approval process, speeding the innovation cycle. To keep the TCB review process streamlined, but fair, TCBs should be permitted to dismiss applications without prejudice, but not deny applications on the merits, which should be a function reserved for Commission staff. The TCBs need to be adequately trained, and additional training opportunities should be added to the current quarterly training sessions.

Cisco supports the proposed changes to the application filing and processing procedures, given the shift of all application review to TCBs. However, the Commission should make clear that TCBs must process applications even-handedly, and not assign different priorities based on payment of expedited processing fees.

Cisco supports the Commission's well-reasoned proposals for improving TCB post-market surveillance on equipment after certification, to be updated through the Office of Engineering and Technology ("OET") Knowledge Database. Cisco also supports the *Notice*'s proposals for designating, recognizing, and assessing the performance of TCBs. In addition, the rules should be updated to reference updated standards for TCB accreditation.

Test Laboratories. The "listing" program that allows unaccredited test labs to qualify for testing Part 15 and Part 18 devices should be eliminated as proposed, and instead laboratories should be required to qualify for, and maintain, accreditation in accordance with international standards. This provides added reliability and confidence in test results that is essential when the Commission relies almost exclusively on TCBs instead of its own staff for review of applications. However, there is no need to have all bench tests performed at an accredited laboratory, as long as the results from the bench test laboratory are reviewed by an accredited test laboratory.

The Commission should not codify the criteria for qualifying as a laboratory accreditation body. The current procedures and criteria were developed under delegated authority and should remain subject to adjustment by OET.

Cisco supports the Commission's proposals to update the test site validation criteria from ANSI C63.4-2001 to ANSI C63.4-2009, with the ground plane covered pursuant to CISPR 16, and to require test sites be re-validated every three years.

Measurement Procedures. To provide clarity to industry and the TCBs, the Commission should update Part 15's measurement procedures from ANSI C63.4-2003 to ANSI 63.4-2009 and ANSI 63.10-2009 as proposed. However, the Commission should leave the door open for the use of CISPR 22 as an alternative, after further consideration, pursuant to the exercise of delegated authority by OET. In addition, OET should have delegated authority to update existing references to industry standards in the rules setting out measurement procedures,

pursuant to notice and comment procedures, but not to incorporate new standards into the rules. Any such updates that involve new requirements or changes to existing requirements should be phased in over a two-year transition period.

Transition Periods for Accreditation and Site Validation. Cisco agrees with the *Notice* that there will need to be a transition period for laboratories to become accredited and/or comply with site validation criteria. For currently accredited laboratories, one year is reasonable for complying with site validation criteria. However, unaccredited laboratories should be allowed 18 to 24 months to become accredited and come into compliance with the site validation criteria.

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COMMENTS OF CISCO SYSTEMS, INC.

I. INTRODUCTION

Cisco Systems, Inc. ("Cisco") submits these comments in response to the Commission's *Notice of Proposed Rulemaking* ("*Notice*") proposing modifications to the Commission's rules for authorizing radiofrequency ("RF") and terminal equipment.[1]

Cisco is the worldwide leader in the design and manufacture of networking and other products used to transport data, video and voice within buildings, across campuses and around the world. As such, Cisco makes extensive use of the Commission's equipment authorization programs for both intentional radiators (such as Wi-Fi access points and small cell base stations) and unintentional radiators (including routers, switches, and cable set-top boxes). Most of Cisco's Commission equipment authorization activity is concentrated toward devices regulated under Part 15 and Part 68 of the Commission's Rules.

Cisco applauds the Commission's successful implementation of its equipment authorization rules over the years. The Commission has succeeded in meeting the ever-

[1] *Amendment of Parts 0, 1, 2, and 15 of the Commission's Rules regarding Authorization of Radiofrequency Equipment; Amendment of Part 68 regarding Approval of Terminal Equipment by Telecommunications Certification Bodies*, Notice of Proposed Rulemaking, 28 FCC Rcd 1606 (2013), *summarized*, 78 Fed. Reg. 25916 (May 3, 2013).

increasing demand for device approval — up from about 3000 in 1999 to nearly 14,000 in 2011 — by developing an efficient, streamlined equipment authorization process that increasingly relies on Telecommunication Certification Bodies ("TCBs") and a relatively small Commission staff.[2] The Commission's framework, as implemented by the Office of Engineering and Technology ("OET") under delegated authority, has contributed to predictable outcomes (albeit sometimes not as swift as one might hope). In addition, the equipment regulations have been implemented with a high degree of transparency — for example, online features such as the searchable knowledge database ("KDB") have greatly improved the ability of equipment manufacturers and the TCBs to understand and comport with the policies being applied during the equipment authorization process. This is persuasive evidence of a thoughtful and well-designed equipment authorization program that has allowed innovation to flourish.

While Cisco agrees that the Commission's program has served the nation well in controlling interference,[3] the *Notice* correctly recognizes that there have been many changes in technologies, devices, and manufacturing methods since the Commission last took a holistic review of the equipment authorization program.[4] A review of the program is warranted, and Cisco appreciates that the Commission has initiated this proceeding to explore yet further improvements that can increase efficiency, while improving interference prevention and fostering innovation.

Since the Commission's last review of the equipment authorization process, radio devices have become largely software controlled, whether or not they are officially certified as "software

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[2] *See* Laboratory Division, FCC, *FCC Presentations: TCB Workshop April 24-25, 2012*, at Slide 3 ("TCB Workshop"), available at http://transition.fcc.gov/bureaus/oet/ea/presentations/files/apr12/1.-April-12-FCC-TCB-Workshop-Overview-RD.pdf.

[3] *See Notice* at ¶ 11.

[4] *See id.* at ¶¶ 6-7, 12.

defined radio" ("SDR"). As a result of the dawn of the software radio era, equipment subject to Commission approval is regularly updated and upgraded over time through software changes that unlock new features or change functionalities, and that increase the workload imposed on the equipment authorization process.

At the same time, there is an ongoing explosion in the number of devices that incorporate network technology. Cisco's most recent Visual Networking Index update estimated that in the United States alone, there will be 3 billion networked devices in 2017 (7.9 devices per capita), up from 2 billion in 2012 (4.9 devices per capita).[5] Increasingly, smartphones, tablets, laptops, peripherals, appliances, home heating and cooling systems, and even automobiles and are employing wireless technologies such as Wi-Fi and Bluetooth as we move toward the "Internet of Things." The Commission is wise to get ahead of the curve and improve its equipment authorization processes to cope with the inexorable growth in devices that will feature wireless connectivity, and thus come within the purview of the Commission's equipment authorization process for the first time.

As will be discussed in more detail below, Cisco supports the vast majority of the proposals in the *Notice*, and, in particular, those that will streamline the equipment testing and certification process, provide greater clarity to industry and the TCBs, and enhance the Commission's flexibility to rapidly adapt to changes in technology. Shifting responsibility for all certifications to TCBs, instead of having some handled directly by the Commission staff, takes a major stride toward more efficient processing. However, there will remain an important role for the Commission staff in oversight of the TCB certification process, including accreditation of TCBs and test laboratories where appropriate, and providing training,

[5] http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html (filtered by United States and Device Growth/Traffic Profiles).

consultation, and guidance to TCBs. Adoption of the proposals advanced below will strike an appropriate balance by providing enhanced clarity and certainty to industry and the TCBs, while preserving to OET the ability to adjust rapidly in an ever-changing environment.

II. TCB REQUIREMENTS

A. Cisco Generally Supports The Proposed Changes To The Rules Governing The Role Of TCBs In Equipment Certification

Under the Commission's current rules and policies, OET maintains on the KDB system an "exclusion list" [6] of the types of equipment that a TCB is not allowed to certify because the Commission has explicitly required OET certification or application of the Commission's rules or requirements are unclear.[7] The *Notice* proposes to eliminate the practice of maintaining an "exclusion list" and instead to rely exclusively on TCBs to certify all equipment, subject to a pre-approval process in some cases.[8] Cisco supports that proposal.

As is recognized by the *Notice*, TCBs now certify over 98% of all RF equipment, and clearly have the capacity and ability (with appropriate OET guidance) to handle the remaining 2% of all RF equipment certifications. Elimination of the "exclusion list" will allow the Commission's limited staff to focus its efforts on overseeing and guiding the TCBs and enforcing the rules by, among other things, performing post-market surveillance and auditing random samples of products approved by the TCBs.[9] Moreover, adoption of the proposal should largely eliminate long delays that are sometimes experienced during the approval process – delays which have prevented manufacturers from bringing to the American market their most

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[6] Laboratory Division, OET, *TCB Exclusion List*, KDB 628591 (April 8, 2013), *available at* https://apps.fcc.gov/kdb/GetAttachment.html?id=nTvGYb3wXywfLZLT8iYVuw%3D%3D.

[7] *See Notice* at ¶ 18, *citing* 47 C.F.R. § 2.962(e)(5)(i).

[8] *Notice* at ¶ 18.

[9] *See id*.

innovative devices, slowing the pipeline not only for those devices but for future generations of the devices. Vendors and American consumers alike will be better served when all new devices can be considered and approved with a shorter turn-around time.

The *Notice* recognizes that some equipment, such as that currently on the "exclusion list", present unique certification issues, and thus proposes a pre-approval guidance procedure under which OET will identify the types of devices or types of testing for which a TCB will be required to consult with and receive approval from the Commission before granting certification.[10] The Commission also proposes integrating the pre-approval guidance procedure with the KDB and Equipment Authorization System ("EAS") to facilitate improved collaboration between the TCB and the OET staff.[11] Cisco supports the proposed pre-approval guidance procedure, and agrees with the *Notice* that letting the Commission staff offload to the TCB the routine processing portions of equipment review, while having OET's expert staff maintain a role of close oversight and guidance in areas requiring it, would be an improvement to the process and could speed review.

However, as TCBs take on the most challenging equipment authorization issues, it is critical that they be properly trained to ensure success as they move from handling some 98% of RF device approvals to 100%. Cisco suggests that the Commission consider supplementing its semi-annual TCB training sessions with online tutorials and webinars. This is especially important because TCBs need to be able to conduct their analysis properly to ensure a level playing field for manufacturers in a highly competitive field, as well as to ensure Commission requirements are met.

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[10] *See id*. at ¶ 19-22.

[11] *See id.* at ¶ 20.

To further facilitate the shifting of routine workload from the Commission's own staff to TCBs, Cisco supports the proposal in the *Notice* to allow a TCB to dismiss an application without prejudice, either at the applicant's request or if the application does not meet the stated requirements.[12] To assure administrative fairness and as a check on TCB performance, an applicant should, as proposed in the *Notice*, be permitted to appeal to the Commission a TCB's dismissal of an application if it believes that the TCB acted in error.[13] Cisco also agrees with the Commission that TCBs should not have authority to deny applications on the merits; this is a function for the Commission. Rather, as proposed in the *Notice*, TCBs should be permitted to recommend denial to the Commission, with the Commission to make the determination, and that either the TCB or the Commission staff could set aside a certification grant within 30 days.[14]

Given the proposal to have all applications processed by TCBs, in the first instance, rather than the Commission staff, the *Notice* correctly recognizes that changes will be required to the Commission's equipment certification filing and process procedures.[15] Cisco supports the specific filing and processing procedures proposed in the *Notice*, which are necessary, appropriate and impose no material burden on applicants.[16]

There is one caveat to that support, however. The discussion of filing and processing procedures is silent on whether a TCB must process applications evenhandedly, in the order in which they are received. Cisco is concerned that a lack of any such requirement could result in TCBs assigning differing priorities to applications based on whether the applicant pays a

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[12] *See id*.

[13] *See id.*

[14] *See id*.

[15] *See id*. at ¶ 23.

[16] *See id*. at ¶ 24.

supplemental fee for expedited consideration. The Commission should make clear that TCBs may not charge expediting fees for priority handling, and should process applications in the order in which they are received.

The *Notice* proposes that TCBs must supply the Commission with a complete copy of the Form 731 and all related materials, including confidential exhibits, prior to a grant or dismissal of the application, and includes language to protect confidential exhibits.[17] Cisco supports this proposal. Cisco also supports the proposed minor revisions to the Part 2 rules to reflect the fact that TCBs would be taking on responsibility for approving all RF equipment subject to Part 2 certification.[18]

B. Cisco Supports The Proposals Regarding TCB And Commission Post-Market Surveillance

Effective post-market surveillance on authorized equipment is essential. As is detailed in the *Notice*, although OET has issued a KDB publication requiring post-market surveillance on at least 5% of the products a TCB certifies each year,[19] TCBs currently lack specific authority to request samples from the grantee of certification.[20] Cisco generally supports the Commission's proposal to include in its rules a specific reference to the requirement that TCBs must undertake post-market surveillance pursuant to an OET KDB and that TCBs be given specific authority to request samples of equipment they have certified from the grantee.[21] The Commission also should, as proposed, empower OET to request, where circumstances warrant, that a particular

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[17] *Id*. at ¶ 25-26.

[18] *Id*. at ¶ 27.

[19] *Id*. at ¶ 29; Laboratory Division, OET, *TCB Post-Market Surveillance*, KDB 610077 (Oct. 25, 2011), available at https://apps.fcc.gov/kdb/GetAttachment.html?-id=gIgy%2B2Z9e9%2FTWwzV3Tao6w%3D%3D.

[20] *Notice* at ¶ 28.

[21] *Id*. at ¶ 30.

grantee send samples directly to the TCB for evaluation, with adverse consequences for a failure to cooperate.[22]

Where equipment is found by a TCB to be non-compliant, the TCB should be required to notify the grantee and the Commission.[23] If a TCB's post-market surveillance testing finds that equipment fails to comply, the TCB should be required to disclose to the applicant any difference between how the recent testing was conducted and how the testing was conducted at the time of the original grant. Upon determination of non-compliance, the grantee should be permitted to challenge that finding, address any changes in the testing methodology or required to provide the TCB with information on corrective action. Each TCB should be required to provide periodic reports to the Commission regarding its post-market surveillance activities.[24]

Cisco generally supports these proposals. The Commission should take the lead role and provide direction to TCBs on how to conduct post-market surveillance through updates to its KDB guidance document,[25] and TCBs should act on that guidance.

C. The Proposals Advanced In The Notice For Assessing TCB Performance Should Be Adopted

As TCBs become responsible for all RF equipment certification, "it will become increasingly important to ensure that recognized TCBs continue to meet all relevant Commission

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[22] *See id*. at ¶ 31.

[23] *See id.* at ¶ 32.

[24] *See id*.

[25] In this regard, Cisco is concerned that although the Commission has recently decided to discontinue use of OET Bulletin 65, Supplement C (which provides guidance regarding the RF exposure limits for portable and mobile devices) in lieu of the KDB, it has yet to publish KDB guidance to assist TCBs in their post-market surveillance of such devices to assure compliance with the RF exposure limits. *See* Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies, *First Report and Order, Further Notice of Proposed Rule Making and Notice of Inquiry*, FCC 13-39, ET Docket No. 13-44, at ¶ 37 (rel. Mar. 29, 2013).

requirements and that we minimize the possibility that equipment could be certified without fully complying with our technical rules."[26] The *Notice* recognizes that the current rules regarding TCB designation and evaluation are somewhat lacking, and Cisco generally supports the proposals in the *Notice* to improve that situation.

In particular, the Commission should adopt its proposals to formally recognize National Institute of Standards and Technology ("NIST") as the designating authority for TCBs within the United States, to make clear that NIST has authority to designate other organizations to accredit TCBs as it does now; and to provide that an organization designated as a TCB must also be recognized by the Commission to function as a TCB, which recognition can be withdrawn by the Commission if the TCB does not act in accordance with the rules.[27] In addition, the Commission should, as proposed, have authority under its rules to take corrective steps less drastic than withdrawal of recognition, including written notice and opportunity to correct deficiencies; monitoring of grants; or use of the pre-approval guidance procedure.[28] This approach would allow the Commission to exercise more effective oversight over TCBs commensurate with the increased responsibility being placed on TCBs with respect to the day-to-day workings of the equipment authorization process.

The *Notice* also observes that in the time since the TCB rules were adopted, the International Organization for Standardization and International Electrotechnical ("ISO/IEC")

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[26] *Notice* at ¶ 34.

[27] *See id*. at ¶ 38.

[28] *Id*. at ¶ 39. Cisco also supports the proposal in the *Notice* for cases where a TCB continues to be deficient after being requested to take corrective action — namely, that the Commission may request that the designating authority (*i.e.*, NIST, in the case of U.S. TCBs) and accrediting body investigate and take appropriate steps. *Id.* at ¶ 40. When a TCB outside the United States is recognized pursuant to a Mutual Recognition Agreement ("MRA"), the additional steps discussed in the *Notice* at Paragraph 40 appear appropriate. In addition, Cisco agrees with the proposals in paragraph 41 of the *Notice* regarding foreign TCBs.

guides used for accreditation of TCBs have changed. As a result, the Commission's rules no longer reflect the current accreditation standards.[29] Cisco supports the Commission's proposal in the *Notice* to update its rules to reference the current accreditation standards and guides.[30]

III. TEST LABORATORIES

A. Cisco Supports Requiring Accreditation Of Test Laboratories, But Not For Bench Tests

As the *Notice* recounts, the Commission's rules require certification of Part 15 and Part 18 devices (but not equipment operating in licensed services) to be based on tests at a laboratory that either has been accredited under ISO/IEC 17025 and recognized by the Commission or that has merely filed a description of its facilities with the Commission demonstrating its compliance with various requirements, subject to Commission review.[31] Recognizing that the accreditation process is more rigorous and requires on-site inspections by the accrediting body, the *Notice* proposes to end the so-called "listing" program, and require that all laboratories testing Part 15 and Part 18 devices would have to be accredited under ISO/IEC 17025.[32]

Cisco supports the proposal to require accreditation, rather than mere listing based on an Commission paper review. The added reliability and confidence that results from testing by laboratories accredited in accordance with international standards is especially important if the Commission is going to be relying exclusively, or almost so, on TCBs instead of its own staff for review of equipment authorization applications. However, Cisco notes that some tests performed by accredited laboratories need only be bench tests, rather than tests on an accredited test range. For example, during radio development required conducted measurements of occupied

[29] *See Notice* at ¶¶ 43-44.

[30] *See id*. at ¶ 45.

[31] *See id*. at ¶¶ 46-48.

[32] *See id*. at ¶ 49.

bandwidth, transmitter power output and compliance to the Dynamic Frequency Selection requirements and often done at the engineering test bench. The Commission should not require the bench test laboratory to be accredited, as long as the test is reviewed by the accredited test laboratory and qualified personnel.[33]

B. The Procedures And Criteria For Selection Of New Laboratory Accreditation Bodies Should Be Established Through OET Guidance, Rather Than Codified Into Rules

The *Notice* notes that the rules require entities seeking recognition as laboratory accreditation bodies to obtain OET's approval, based on ISO/IEC requirements.[34] OET, in turn, has issued a public notice indicating how it evaluates such requests.[35] The *Notice* proposes to codify the procedures and criteria announced in that public notice into the rules.[36]

Cisco submits that codification of the OET public notice would be a mistake. The existing procedures and criteria were developed through the exercise of OET's delegated authority in an environment of constant change, and should remain subject to the flexibility of delegated-authority adjustment to adapt to new developments. Accordingly, Cisco urges the Commission to delegate authority to OET to fine-tune its procedures and criteria through the issuance of public notices, updates to the KDB, and other guidance rather than to freeze them into rules that can only be adjusted by the full Commission.

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[33] Cisco also supports proposals in the *Notice* that test laboratories maintain a description of their facilities and supply it to an accreditation body or the Commission on request, and that accredited laboratories be reassessed every two years. *See id*. at ¶ 50. Cisco also endorses the proposal in the *Notice* that the Commission continues to maintain a list of accredited laboratories, including those in the United States and those outside the United States if they are recognized under the terms of an MRA or other agreement. *See id*. at ¶ 51.

[34] *See id*. at ¶ 54.

[35] *See id*. at ¶ 55, *citing Office of Engineering and Technology Provides Guidance on the Recognition of Laboratory Accreditation Bodies and Recognizes ACLASS as an Accreditation Body,* Public Notice, 25 FCC Rcd 10830 (OET 2010).

[36] *See Notice* at ¶ 56.

C. The Commission Should Modify Its Rules Regarding Test Site Validation As Proposed

As discussed in detail in the *Notice*, although the Commission's rules currently require that a facility used for measuring radiated emissions from a Part 15 or Part 18 device must meet the site validation requirements in ANSI C63.4-2001,[37] that particular standard does not have specific site validation criteria for test facilities used above 1 GHz.[38] However, a later version of the standard, ANSI C63.4-2009,[39] does address test site validation for facilities used to make radiated emission measurements above 1 GHz .[40]

Cisco supports the Commission's proposals to update its test site validation requirements to incorporate the site validation requirements of ANSI C63.4-2009 and to require that if the measurement site will be used for measuring radiated emissions in the range of 1 GHz to 40 GHz, the site must meet the first alternative specified in Section 5.5 of this procedure (which states that RF absorbing material must cover the ground plane such that the site validation criterion called out in CISPR 16[41] is satisfied).[42] Cisco also supports the proposal that a test site confirm its compliance with these validation criteria at least once every three years.[43] These

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[37] ANSI C63.4-2001, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.*

[38] *See Notice* at ¶ 57.

[39] ANSI C63.4-2009, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.*

[40] *See Notice* at ¶¶ 57-58.

[41] Comité International Spécial des Perturbations Radioélectriques ("CISPR") 16-1-4:2007, *Specification for radio disturbance and immunity measuring apparatus and methods — Part 1-4: Radio disturbance and immunity measuring apparatus — Ancillary equipment — Radiated disturbances*.

[42] *See Notice* at ¶ 59

[43] *See id.*

criteria have been developed with the participation of the industry and approved by domestic and international standards bodies. Cisco already complies with these site validation criteria and does not consider it to unduly burdensome to validate its compliance every three years.

IV. MEASUREMENT PROCEDURES

A. The Commission Should Adopt The Proposed Incorporation Into Its Rules Of Both ANSI C63.4-2009 And ANSI C63.10-2009

As recounted in detail in the *Notice*, the fact that Section 15.31(a)(3) of the Rules specifies that emissions measurements are to be conducted in accordance with the ANSI C63.4-2003 standard[44] has necessitated the issuance of additional guidance since that standard's promulgation a decade ago as new types of intentional radiators have been developed.[45] In the meantime, the ANSI C63.10-2009 standard has been promulgated for testing unlicensed wireless devices, incorporating measurement procedures that the Commission staff has allowed, while an updated version of ANSI C63.4, ANSI C63.4-2009, which now addresses only unintentional radiators, has been adopted.[46] As a result, the Commission now proposes to modify Section 15.31(a)(3) to incorporate into its rules references to both ANSI C63.4-2009, for unintentional radiators, and ANSI C63.10-2009 for intentional radiators.[47]

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[44] ANSI C63.4-2003, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz*.

[45] *See Notice* at ¶¶ 60-61.

[46] *See id.* at ¶¶ 61-62, (*citing* ANSI C63.10-2009, *American National Standard for Testing Unlicensed Wireless Devices* and ANSI C63.4-2009, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40 GHz*). A petition for rulemaking to incorporate these standards into the rules was filed by ANSI Accredited Standards Committee 63 in 2011, and comments and replies have been filed. *See Notice* at ¶¶ 63-66.

[47] *See Notice* at ¶ 67. With regard to ANSI C63.4-2009, the Commission proposes to exclude the sections allowing use of rod antennas below 30 MHz, artificial hands for holding handheld devices, absorber clamps for radio noise power measurements, and relaxation of the limits for transient emissions. *See id.*

Cisco supports the proposal to modify Section 15.31(a)(3) to incorporate these specific references, subject to adoption of the *Notice*'s proposal, discussed in Section IV.B below, to delegate authority to OET to update those specific references as they evolve. As the Commission is aware, ANSI C63 constantly is evaluating its standards for the testing of RF emitters – right now, a revised C63.10 standard for testing of unlicensed transmitters is schedule for final publication this summer, and a draft C63.26 standard for testing of licensed transmitters is undergoing development.[48] While modifying Section 15.31(a)(3) as proposed in the *Notice* will bring that rule up to date, events will soon overtake even the modified rule unless OET is empowered to promptly incorporate evolving standards.

The *Notice* also discusses at length the Information Technology Industry Council ("ITI") proposal to allow reliance on the international CISPR 22 standard[49] as a permissive alternative to ANSI 63.4 for measuring emissions.[50] ITI argued that acceptance of compliance with the international standard would obviate the need for equipment to be tested separately for domestic and international compliance.[51] However, the *Notice* does not propose to incorporate the CISPR

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[48] *See* Jones, "C63 Activities and Revised Measurement KDB Publications," Federal Communications Commission, Office of Engineering and Technology, *available at* http://transition.fcc.gov/bureaus/oet/ea/presentations/files/apr13/6e-C63-Activities-and-KDB-Revisions-SKJ.pdf. With respect to the issues addressed above regarding test sites, it should be noted that the C 63.26 workgroup is discussing using a direct method of measurements for licensed service transmitters requiring the use of a test site that meets the requirements as specified in C 63.4.

[49] CISPR 22, *Information technology equipment – Radio disturbance characteristics — Limits and Methods of measurements*.

[50] *See Notice* at ¶¶ 65-66, 68.

[51] *See id.* at ¶ 65.

22 alternative into its rules as requested, citing a variety of ways in which CISPR 22 deviates from ANSI 63.4.[52]

Cisco believes that CISPR 22 should not be rejected at this time. Its adoption as an alternative test standard merits further consideration, after there has been an opportunity to weigh and discuss it in detail. In this connection, Cisco notes that Industry Canada allows vendors to rely on a Canadian version of CISPR 22-10 in conducting radiated emission measurements for devices operating both below 1 GHz and above 1 GHz.[53] The CISPR 22 standard, like all standards, undergoes numerous changes over time. Thus, the Commission should leave the door open to further discussion about potential reliance on internationally adopted standards such as CISPR 22 to demonstrate electromagnetic compatibility compliance. If the use of this international standards is ultimately deemed appropriate, manufacturers would be able to streamline their test processes and reduce costs, while still maintaining compliance with the Commission's requirements.

Accordingly, Cisco recommends that if the Commission adopts ANSI C 63.4 without incorporation of CISPR 22 as an alternative, it should expressly delegate authority to OET to

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[52] *See id.* at ¶ 68 (citing the fact that CISPR 22 addresses measurements only to 6 GHz, is applicable only to digital devices, and a view that the C63.4-2009 procedure is more accurate for frequencies above 1 GHz because CISPR 22 specifies a fixed antenna height that many not determine the maximum emissions levels).

[53] In fact, Industry Canada has included CISPR 22 (as modified to incorporate Canadian variants) as well as ANSI 63.4 as a normative standard in its testing standard for information technology equipment. *See* Industry Canada, ICES-003 — *Information Technology Equipment (ITE) — Limits and Methods of Measurement*, Issue 5, §§ 5(a)(i), 5(b)(i) (Aug. 2012), available at http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/ICES-003-issue5-2012.pdf/$FILE/ICES-003-issue5-2012.pdf (referencing Canadian Standards Association Standard CAN/CSA-CISPR 22-10, *Information technology equipment — Radio disturbance characteristic s — Limits and methods of measurement* (described as the "adoption with Canadian deviations" of CISPR 22)). *See also* Industry Canada, *Update on Canadian Regulatory Standards (RSS/ICES)*, at 13 (Apr. 2012), available at http://www.c63.org/documents/misc/minutes/April2012/Main/DRS_IC_Standards_update_April_2012.pdf.

permit the use of CISPR 22 or other designated international standards, under appropriate conditions, to demonstrate compliance with the Commission's electromagnetic compatibility limits.

B. OET Should Have Delegated Authority To Update Measurement Procedures

Cisco supports the Commission's proposal to delegate authority to OET to update existing references to industry standards in Parts 2, 15, and 18 of the rules, so as to avoid the need for Commission action as industry standards change.[54]

However, as the Commission notes, this delegation should be limited to updating existing references and should not extend authority to incorporate new standards into the rules. Cisco agrees that to comport with the Administrative Procedure Act, OET must provide notice and an opportunity for comment on such rule revisions, as the *Notice* proposes.[55] Moreover, Cisco also urges the Commission to require OET to provide a transition period when rules are revised to include new requirements or changes to existing requirements, rather than merely reference updated standards that are just editorial in nature. Given the time required for industry to develop new procedures for development and testing of equipment, Cisco suggests that a minimum of two years be allowed from the effective date of such a rule change before the revised rule become mandatory.

C. Other Issues

The *Notice* proposes to amend Section 2.1033 of the rules to require that applications for certification include photographs or diagrams regarding how each test is set up and conducted.[56] Cisco agrees with the Commission that this will facilitate Commission determination whether the

[54] *See Notice* at ¶¶ 69-70.

[55] *See id.*

[56] *See id*. at ¶ 71.

test set-ups are consistent with its authorization processes. Accordingly, the Commission should require photographs or diagrams of test set-ups, as proposed. However, the Commission should take steps to expand and streamline the online application process by facilitating the uploading of applications in a single file.

Cisco also supports the proposal to remove Sections 15.109(g)(4) and 15.31(a)(3), which reference former rules, as unnecessary.

V. TRANSITION PERIOD

The *Notice* notes that there will need to be a transition period for laboratories to comply with the rule changes proposed, which will require accreditation and/or site validation in many cases. Accordingly, the Commission proposes to stop accepting applications for unaccredited laboratories; to allow unaccredited laboratories that are currently listed to continue operating without accreditation for one year after the effective date of the new rules; and to allow all listed laboratories, whether accredited or not, to comply with ANSI C63.4-2009 site validation within one year of the effective date of the new rules.[57]

Cisco agrees that a transition period is necessary. In the case of laboratories that are currently accredited, one year appears to be a reasonable period for complying with the site validation criteria. However, listed unaccredited laboratories may require additional time to become accredited and comply with the site validation criteria. Accordingly, Cisco suggests that the Commission allow unaccredited laboratories 18 to 24 months to come into compliance with the ANSI C63.4-2009 site validation criteria.

[57] *See id*. at ¶ 73.

VI. CONCLUSION

Cisco appreciates the Commission's attention to the need for continual updates and revisions to its technical rules in light of innovations and ongoing developments in industry, and its willingness to undertake a sweeping reassessment of its equipment authorization process. Cisco generally supports the proposals in the *Notice* with the limited exceptions noted herein.

Respectfully submitted,

CISCO SYSTEMS, INC.

By: /s/ Mary L. Brown
Mary L. Brown

Director, Government Affairs
601 Pennsylvania Avenue, NW
9th Floor North
Washington, DC 20004
(202) 354-2923

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