IEEE 802.19.1a  
Wireless Coexistence

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| Text proposal on terminology definitions in P802.19.1a | | | | |
| Date: 2016-01-19 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | Email |
| Sho Furuichi | Sony |  |  | Sho.Furuichi@jp.sony.com |
| Chen Sun | Sony China |  |  | Chen.Sun@sony.com.cn |
| Naotaka Sato | Sony |  |  | naotaka.sato@ieee.org |

Abstract

This document provides definitions of terminologies that should be defined in P802.19.1a. Text proposal included in doc IEEE 802.19-16/0011r2 is also shown here. Following the discussion this document will be revised.

**=======(Text proposal as follows)**

**3. Definitions, acronyms, and abbreviations**

**3.1 Definitions**

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause.

**autonomous decision making:** A decision-making topology where the coexistence manager (CM) makes its decisions independently from another CM.

**basic procedures:** Basic procedures comprised of authentication, subscription, and registration procedures.

**centralized decision making:** A decision-making topology where one coexistence manager (CM) relegates its decisions to another CM.

**coexistence:** The ability of two or more spectrum-dependent devices or networks to operate without harmful interference under the same frequency authorization in the same frequency band each other.

**coexistence algorithms:** Procedures executed inside the coexistence system in order to provide the coexistence services. coexistence discovery: Procedure executed inside the coexistence system in order to find out a coexistence set for a coexistence enabler (CE) and its geo-location capable object (GCO).

**coexistence discovery and information server (CDIS):** An entity that is responsible for determining for coexistence managers (CMs) those geo-location capable objects (GCOs) that may affect performance of the GCOs that the CMs serve.

**coexistence enabler (CE):** An entity that represents a geo-location capable object (GCO) in the coexistence system and serves one GCO at a time.

**coexistence manager (CM):** An entity that is responsible for making coexistence decisions related to reconfiguration of geo-location capable objects (GCOs) to solve coexistence problems among them.

**coexistence services:** Services provided by the coexistence system to dissimilar or independently operated geo-location capable objects (GCOs) as well as services provided by the entities of the coexistence system to other entities of the coexistence system.

**coexistence set:** A set of geo-location capable objects (GCOs) associated to a GCO containing those GCOs that may affect performance of the GCO.

**coexistence set element:** One geo-location capable object (GCO) of a coexistence set.

**coexistence system**: A set of one or more coexistence enablers (CEs), coexistence managers (CMs), coordination enablers (COEs) and a coexistence discovery and information server (CDIS).

**coordination enabler (COE):** An entity that can communicate with coexistence manager (CM) within the same coexistence system and with the coordination enabler (COE) within the other coexistence system.

**distributed decision making:** A decision-making topology where one coexistence manager (CM) makes its decisions in coordination with the other CM.

**general authorization:** Frequency authorization that a device would be entitled to use the spectrum with no individual frequency planning/coordination (not be entitled to interference protection from the others).

**geo-location capability**: The ability of a device to identify its geographical coordinate with certain accuracy.

**interference:** The effect of unwanted energy due to one or a combination of emissions, radiations, or inductions upon reception in a radio-communication system, manifested by any performance degradation, misinterpretation, or loss of information that could be extracted in the absence of such unwanted energy.

**neighbor coexistence managers:** At least two coexistence managers that serve geo-location capable objects (GCOs) that may affect performance of each other.

**profile:** A statement of the procedures, messages, and parameters that are mandatory and that are optional for the implementation of an IEEE 802.19.1a compliant coexistence system entity.

**priority-based channel assignment:** Assignment of a channel by the CM to a GCO in such a way that the GCO can operate alone in such channel for a specific reservation period and in a specific area based on particular minimum protection requirements of the GCO operating under general authorization in same frequency band.

**registered location secure server (RLSS):** An entity that accesses and manages a database that organizes storage of information by geo-location and securely holds the location and some operating parameters of one or more basic service sets (adapted from IEEE Std 802.11af™).

**spectrum access system (SAS)**: A system that authorizes and manages use of spectrum for the Citizens Broadband Radio Service in accordance with C.F.R Part 96.

**spectrum management database (SMDB)**: A database system approved by the relevant national regulatory authority which can communicate with GCOs and provide information on spectrum availability taking into account any operational changes from the protected incumbents. SMDB includes TVWS database, geo-location database, SAS database, and such kind of database system.

**geo-location capable object (GCO):** An entity that represents a device or network of devices operating under general authorization with geo-location capability. The entity is connected to a coexistence enabler (CE) to consume coexistence services.

**3.2 Acronyms and abbreviations**

CDIS coexistence discovery and information server

CE coexistence enabler

CM coexistence manager

COE coordination enabler

FER frame error rate/frame error ratio

IP Internet protocol

IPNF interference-plus-noise floor

RLSS registered location secure server

SAP service access point

SAS spectrum access system

SMDB spectrum management database

SINR signal-to-interference-plus-noise ratio

SSH Secure Shell

TCP Transmission Control Protocol

TLS transport layer security

TVBD television band device

TVWS television white spaces

GCO geo-location capable object