IEEE P802.11
Wireless LANs

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| CID 3078 -- Definition of MCS and Basic Rate Set |
| Date: 2023-01-16 |
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Abstract

CID 3078 -- Definition of MCS and Basic Rate Set

Comment discussion on what if any changes to the definitions may need to be made.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** |
| 3078 | 205.00 | 3.2 | The definition of basic modulation and coding scheme set contains the phrase "transmitting at all MCSs in the basic MCS set" which is confusing. | Rephrase as "transmitting using all MCSs in the basic MCS set" |

From the November 15, 2022, Minutes:

2.8.7          CID 3078 (GEN)

2.8.7.1    Review Comment

2.8.7.2    Change “at” for “using”

2.8.7.3    Review context.

2.8.7.4    Discussion on what should be in a definition or not.  Requirements should not be put in the definition.  Suggestion to delete last line.

2.8.7.5    Discussion on alternate definition, and the definitive definition would be better.

2.8.7.5.1           E.g. basic MCS set: <something like>: The set of MCSs that all STAs in a BSS are capable of, or have signaled that they are capable of, receiving and transmitting.

2.8.7.6    The first two sentences may need to be removed also.

2.8.7.7    Assign to Jon ROSDAHL and Mark CID as “More work Required”.

2.8.7.8    Assign Agenda time in January.

2.8.7.9    Note that this is a similar change at line 30 as well. ... similar change for "basic rate set" at line 30

2.8.7.10 Discuss on the reflector as well.

From D2.1 Page 205.11

**basic modulation and coding scheme (MCS) set**: A set of MCSs designated by the station (STA) that started the basic service set (BSS) and fixed for the lifetime of the BSS. The basic MCS set is typically advertised in the element(s) (#1031)that contains the physical layer (PHY) operation parameters (among others), e.g., high throughput (HT) and very high throughput (VHT) Operation elements. All STAs in a BSS are capable of, or have signaled(#2256) that they are capable of, receiving and transmitting at all MCSs in the basic MCS set.

From D2.1 Page 205.22

**basic rate set:** A set of data rates designated by the station (STA) that started the basic service set (BSS) and fixed for the lifetime of the BSS. The basic rate set is advertised in the Supported Rates and BSS Membership Selectors element and, if present, the Extended Supported Rates and BSS Membership Selectors element. All STAs in a BSS are capable of, or have signaled that they are capable of, receiving and transmitting at all rates in the basic rate set.

Proposed New Definitions:

**basic modulation and coding scheme (MCS) set**: The set of MCSs that all STAs in a BSS are capable, or have signaled that they are capable, of receiving and transmitting at. This ~~A~~ set of MCSs is designated by the station (STA) that started the basic service set (BSS) and is fixed for the lifetime of the BSS. The basic MCS set is typically advertised in the element(s) (#1031)that contains the physical layer (PHY) operation parameters (among others), e.g., high throughput (HT) and very high throughput (VHT) ~~Operation~~ operation elements. ~~All STAs in a BSS are capable of, or have signaled(#2256) that they are capable of, receiving and transmitting at all MCSs in the basic MCS set.~~

Option 2:

**basic modulation and coding scheme (MCS) set**: The set of MCSs is designated by the station (STA) that started the basic service set (BSS) and is fixed for the lifetime of the BSS.

This set of MCSs that all STAs in a BSS are capable, or have signaled that they are capable, of receiving and transmitting at. The basic MCS set is typically advertised in the element(s) (#1031)that contains the physical layer (PHY) operation parameters (among others), e.g., high throughput (HT) and very high throughput (VHT) operation elements.

Option 3:

**basic modulation and coding scheme (MCS) set**: A set of MCSs designated by the station (STA) that started the basic service set (BSS) and fixed for the lifetime of the BSS. The basic MCS set is typically advertised in the element(s) (#1031)that contains the physical layer (PHY) operation parameters (among others), e.g., high throughput (HT) and very high throughput (VHT) Operation elements. All STAs in a BSS are capable of, or have signaled(#2256) that they are capable of, receiving and transmitting using all MCSs in the basic MCS set.

During the November discussion, a possible change was thought to be needed for basic rate set as well, The Group decided on a simple change.

**basic rate set**: A set of data rates designated by the station (STA) that started the basic service set (BSS) and fixed for the lifetime of the BSS. The basic rate set is advertised in the Supported Rates and BSS Membership Selectors element and, if present, the Extended Supported Rates and BSS Membership Selectors element. All STAs in a BSS are capable of, or have signaled that they are capable of, receiving and transmitting using all rates in the basic rate set.

**References:**