IEEE P802.11
Wireless LANs

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| 802.11CIDs 1402 and 1444 |
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**Abstract**

This document contains resolutions of LB #227 CIDs 1402 and 1444.

# Table of Contents

Table of Contents 2

CID 1402 3

CID 1444 3

Resolution 4

4.3.27.1 General 4

9.3.2.1.2 Address and BSSID fields 4

10.62 Addressing of GLK data frame transmission 4

10.63 SYNRA filtering operation 4

# CID 1402

**Comment:**

48-bit MAC addresses in the range 33-33-00-00-00-00 to 33-33-FF-FF-FF-FF are used for IPv6 multicast.

In some case, the SYNRA address is conflicted with IPv6 Multicast MAC address.

See the following example.

B0:1

B1:1

B2:0 (Basic SYNRA)

B3:0 (Basic SYNRA)

B4:1 (Other AID)

B5:1 (AID Bitmap Offset)

B6:0 (AID Bitmap Offset)

B7:0 (AID Bitmap Offset)

When the first 8 bits of the SYNRA structure are set to above and the second 8 bits of the SYNRA structure are also set to b11001100, the SYNRA address is exactly matched with the IPv6 multicast MAC address.

In such case, the problem is that the STA using the IPv6 multicast can't distinguish the address structure of the Address 1 field.

Remove the SYNRA structure or get an approval for the use of the duplicated MAC address block from IANA.

**Proposed Change:**

As per comment.

**Resolution:**

Revise: Change text as in 11-17/0409. It is always unambiguous whether an RA is a MAC address or a SYNRA.

# CID 1444

**Comment:**

I'm not sure about this conditions (1). What if a GLK STA is getting a non-SYNRA groupcast from a GLK AP. Shouldn't that always be discarded?

**Proposed Change:**

Fix.

**Resolution:**

Revise: Change text as in 11-17/0409. It is always unambiguous whether an RA is a MAC address or a SYNRA.

# Resolution

***Change text in the P802.11ak Draft shown as tracked changes below:***

#### 4.3.27.1 General

As described in 4.3.27.3 (Selective reception of group addressed frames), when a GLK AP transmits a four-address MAC header formatted Data frame whose RA contains a group address, the contents of the RA is a synthetic receiver address (SYNRA), and therefore its RA and DA values won’t be equal. A GLK non-AP STA supports selective reception of group addressed frames by supporting SYNRA reception.

***Delete the two occurrences of “arbitrary” since it is not true. (“…arbitrary subset…” of associated STAs re SYRNA)***

***Change text as follows:***

#### 9.3.2.1.2 Address and BSSID fields

When a GLK AP Data frame transmission is sent in a four-address MAC header formatted frame with a groupcast RA, the RA is a SYNRA (see 10.62 (Addressing of GLK Data frame transmission)). A SYNRA is used when the DA is groupcast or when the DA is not known by the corresponding 802.1Q bridge .

## 10.62 Addressing of GLK data frame transmission

If a corresponding IEEE Std 802.1Q Bridge provides a station vector parameter that indicates a single general link, then the GLK STA shall transmit the MSDU using individually addressed MPDU(s) to the peer STA with one of the following methods:

* A three-address MAC header formatted frame if the RA and the DA are equal and the transmitter is an AP.
* A four-address MAC header formatted frame.
* A frame containing a Basic A-MSDU.

If a corresponding IEEE Std 802.1Q Bridge provides a station vector parameter that indicates multiple general links, then GLK transmission of the MSDU shall use one of the following methods:

* Transmit multiple individually addressed MPDUs to peer STA(s).
* Transmit group addressed MPDU(s) using a SYNRA as specified in 10.62 (SYNRA filtering operation), using a four-address MAC header formatted frame with the following restrictions:
	+ may be sent only by a GLK AP;
	+ shall not address a STA that is in PS mode;
	+ shall not address a STA whose general link may pass through a relay.

A GLK AP may use any combination of these methods, such that each peer STA is addressed once. This also applies for each retry triggered by GLK-GCR, which shall use the same method for all transmission attempts.

## 10.63 SYNRA filtering operation

A GLK non-AP STA shall support reception of a SYNRA.

When a GLK non-AP STA receives a group addressed RA in an MPDU from its associated GLK AP, if the SYNRA Type subfield does not represent a supported SYNRA type, or the From DS and To DS subfields in the Frame Control field are not both 1, then the non-AP STA shall discard the frame, and not use the frame for updating any scoreboard used for GLK-GCR block ack. All other group addressed Data frames received from the associated GLK AP shall be counted as received for the purposes of the scoreboard used for GLK-GCR block ack, even if discarded based on the subsequent SYNRA filtering, as described below.