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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** | |
| Title | **Modification of AAI-NBR-ADV Message Format** | |
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| Re: | Sponsor Ballot Recirculation on P802.16.1b/D3 | |
| Abstract | This contribution modifies AAI-NBR-ADV message format and proposes relevant ANS.1 code. | |
| Purpose | For discussion in M2M TG and adoption into 16.1b draft | |
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**Modification of AAI-NBR-ADV Message Format**

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ETRI

# Introduction

New parameters defined in amendment standard shall be added into a legacy control message independently to keep backward compatibility. However, MGID mapping information is located inside the loop defined by reference standard. Two parentheses shall be added into AAI-NBR-ADV message to resolve this problem.

This contribution proposes some modification of AAI-NBR-ADV message format and relevant ASN.1 code.

# Proposed Texts

----------------- Start of the text proposal --------------------------------------------------------------------------------------

[***Remedy 1: Modify Table 39 on page 15 as follows***]

Table 39 – AAI-NBR-ADV message field description

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Size  (bits) | Value/Description | Condition |
| … |  |  |  |
| } //end of for N-NBR-ABSs |  |  |  |
| For (j=0;j<N-NBR-ABSs; j++) } | ~~6~~ | N-NBR-ABSs denotes the number of neighboring ABSs [1..64] |  |
| For (n=0; n<N-M2M-GROUP-ZONE; n++) { | ~~2~~ | N-M2M-GROUP-ZONE denotes the number of M2M Group Zones that the neighbor ABS belongs to [1..4]. | Present when N-M2M-GROUP-ZONE > 1 |
| M2M-GROUP-ZONE-ID | 12 |  |  |
| } |  |  |  |
| } |  |  |  |
| For (i=0; i<Num-M2M-Zones; i++) { | ~~2~~ | Num-M2M-Zones denotes the number of neighboring M2M Zones [1..4] |  |
| M2M-GROUP-ZONE-ID | 12 | Denotes the neighbor M2M-GROUP-ZONE-ID |  |
| For (m=0; m<Num-MGID-Mapping; m++) { | ~~12~~ | Num-MGID-Mapping is the number of mappings of current MGID and new MGID between the serving M2M Zone and the neighbor M2M Zone, where the current MGID is not the same as the new MGID [1..4096]. | Present when the mapping of M2M Service IDs to MGIDs is different in the neighboring M2M Zone |
| Current MGID to New MGID mapping | 24 | The 12 LSBs denote the MGID in current M2M Zone and the 12 MSBs |  |
| } |  |  |  |
| } |  |  |  |
| For (i=0; i<N-NBR-R1-BSs; i++) { |  |  |  |

**[*Remedy 2: Add the following texts on page, line 59 as follow*]**

MGID ::= BIT STRING (SIZE (12)) -- M2M devices only

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

-- Neighbor Advertisement

-- +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-

AAI-NBR-ADV ::= SEQUENCE {

changeCount INTEGER (0..7),

totalNumberOfCellTypes INTEGER (1..8),

cellType ENUMERATED {

macro,

micro,

macro-hotzone,

femto,

ttrRelay,

r1-lzone,

spare2,

spare1

},

totalNumberOfSegments INTEGER (1..16),

segmentIndex INTEGER (0..15),

startingABSIndex INTEGER (0..255),

nbrABSInfoList SEQUENCE (SIZE (1..maxNeighborABSs)) OF NeighborABSInfo,

nbrM2MGroupZoneInfoList SEQUENCE (SIZE (1.. maxNeighborABSs)) OF M2MGROUPZONEID OPTIONAL, -- M2M devices only

mgidMappingInfoList SEQUENCE (SIZE (1..4)) OF MGIDMappingPerZone OPTIONAL, -- M2M devices only

nbrR1BSInfoList SEQUENCE (SIZE (1..maxNeighborR1BSs)) OF NeighborR1BSInfo OPTIONAL,

-- For ABS type whose system info are not included in AAI\_NBR-ADV

cellTypeInfo CellTypeInfo OPTIONAL,

-- Optional LDM parameters included when they are to be changed

...

}

CellTypeInfo ::= SEQUENCE {

rangeIDCell SEQUENCE (SIZE (1..maxPhyCarrierIndices)) OF RangeIDCell OPTIONAL

}

RangeIDCell ::= SEQUENCE {

phyCarrierIndex PhyCarrierIndex,

idCellStartEnd SEQUENCE {

startIDCell IDCell,

endIDCell IDCell

}

}

NeighborABSInfo ::= SEQUENCE {

bsID BSID,

macVersion MacProtocolVersion,

cpLength CPLength,

carrierInfoList SEQUENCE (SIZE (1..maxCarriers)) OF CarrierInfo,

nbrSpecificTrigger Triggers OPTIONAL

}

NbrM2MGZIDInfo ::= SEQUENCE (SIZE (1..4)) OF M2MGROUPZONEID -- M2M devices only

MGIDMappingPerZone::= SEQUENCE {

m2mGroupZoneID M2MGROUPZONEID,

mgidMappingInfo SEQUENCE (SIZE (1..4096)) OF MGIDMappingInfo

} -- M2M devices only

MGIDMappingInfo::= SEQUENCE {

newMMGID BIT STRING (SIZE (12)),

currentMGID BIT STRING (SIZE (12))

} -- M2M devices only

CarrierInfo ::= SEQUENCE {

idCell IDCell,

phyCarrierIndex PhyCarrierIndex,

pgid PGID,

sfhChangeCount INTEGER (0..15),

sfhEncFmt CHOICE {

-- All parameters of SFHSubpacket shall be included

fullSubpkt SFHSubpacket,

-- Parameters of SFHSubpacket are partially included

deltaInfoCurrentCxr OptSFHSubpacket,

-- Parameters of SFHSubpacket are partially included

deltaInfoPrecedingCxr OptSFHSubpacket,

noSFHIncluded NULL

}

}

NeighborR1BSInfo ::= SEQUENCE {

bsID BSID,

r1PreambleIndex BIT STRING (SIZE (8)),

phyModeID INTEGER (0..65535),

channelBW ENUMERATED {

five-mhz,

seven-mhz,

eightPoint75-mhz,

ten-mhz

},

r1BSCenterFreq CenterFreq

}

----------------- End of the text proposal ---------------------------------------------------------------------------------------