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| Project | **IEEE 802.21 Media Independent Handover Services:**  **Amendment 1: Extension for Supporting Handovers with Downlink Only**  **Technologies**  **<**[**http://www.ieee802.org/21/TGb**](http://www.ieee802.org/21/TGb)**>** | |
| Title | **Suggested remedies for IEEE P802.21b™/D03: MIH\_Net\_Bcst\_HO\_Commit** | |
| DCN | **21-11-0067-00-bcst-comment-to-lb4b-mih-net-bcst-ho-commit** | |
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| Re: |  | |
| Abstract | This document proposed changes in IEEE P802.21b™/D03. | |
| Purpose | Adopt | |
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**1. Problem Statement**

MIH\_Net\_Bcst\_HO\_Commit command service uses RP3 as well as RP1 as MIHF communication model reference points.

When using RP3, MIHF procedures occur between the MIHF on the MN and the MIH PoS on a non-PoA network entity. MIH PoS on a non-PoA network entity means that MIH PoS resides deeper inside access or core networks.

Hence, the origination point of the MIH\_Net\_Bcst\_HO\_Commit should not be limited to a downlink-only (DO) network.

**2. Suggested Remedy**

We suggest replacing a “DO network” with “network” as following:

**6.4.3 Command list**

**6.4.3.2 MIH commands**

**6.4.3.2.1 General**

Change Table 7 by adding a new row to the end of the table as indicated:

Table 7 – MIH commands

|  |  |  |  |
| --- | --- | --- | --- |
| **MIH command** | **(L)ocal,**  **(R)emote** | **Comments** | **Defined**  **in** |
| MIH\_MN\_HO\_Complete | R | Notification from MIHF of the MN to the target or source MIHF indicating the status of handover completion. | 7.4.23 |
| MIH\_N2N\_HO\_Complete | R | Notification from either source or target MIHF to the other (i.e., peer) MIHF indicating the status of the handover completion. | 7.4.24 |
| MIH\_Net\_Bcst\_HO\_Commit | R | Command used by the ~~DO~~ network to notify the specific group of MNs of the decided target net­work information | 7.4.27 |

**7.4.27 MIH\_Net\_Bcst\_HO\_Commit**

**7.4.27.1 MIH\_Net\_Bcst\_HO\_Commit.request**

**7.4.27.1.1 Function**

This primitive is used by MIH users on ~~a downlink only (DO)~~ the network to inform the remote MIH users on the specific group of MNs of possible network initiated handovers. This primitive is used to recommend a handover only from the DO network to the bidirectional network based on the selected choices for candidate networks and PoAs. This primitive includes multimedia service (MMS) or multimedia program (MMP) information to identify a group of MNs to which the ~~DO~~ network recommends the handover. Network initiated handovers from the bidirectional network to the DO network would be invoked by using MIH\_Net\_HO\_Commit.

**7.4.27.1.2 Semantics of service primitives**

MIH\_Net\_Bcst\_HO\_Commit.request (

DestinationIdentifier,

TargetMNGroupInfo,

LinkType,

TargetNetworksInfoList,

LinkActionExecutionDelay,

LinkActionsList

)

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| DestinationIdentifier | MIHF\_ID | The remote MIHF, which is the destination of this request. |
| TargetMNGroupInfo | GROUP\_INFO | Multimedia service (MMS) or multimedia program (MMP) information to identify the group of mobile nodes to which the ~~DO~~ networks recommend a han­dover. |
| LinkType | LINK\_TYPE | Contains target link type |
| TargetNetworksInfoList | LIST(TGT\_NET\_INFO) | This list contains information of recommended tar­get networks of type LinkType for assisting the mobile node to perform handover. |
| LinkActionExecutionDelay | UNSIGNED\_INT(2) | Time (in ms) to elapse before an action needs to be taken. A value of 0 indicates that the action is taken immediately. Time elapsed is calculated from the instance the command arrives until the time when the execution of the action is carried out. |
| LinkActionsList | LIST(LINK\_ACTION\_REQ) | A list of network initiated handover actions for the links. |

**7.4.27.1.3 When generated**

The MIH user on the ~~DO~~ network generates this primitive to recommend a handover action when a specific MMP or MMS will no longer be available on the DO network.

**7.4.27.1.4 Effect on receipt**

Upon receipt of this primitive, the MIHF ~~on the DO network~~ generates and sends and MIH\_Net\_Bcast\_HO\_Commit indication message to the remote MIHF. The remote MIHF forwards the indication as an indication to the MIH users.

**7.4.27.2 MIH\_Net\_Bcst\_HO\_Commit.indication**

**7.4.27.2.1 Function**

This primitive is used by an MIHF for MIH users to perform a network initiated handover. This primitive is the result of the receipt of an MIH\_Net\_Bcst\_HO\_Commit indication message from a remote MIHF.

**7.4.27.2.2 Semantics of service primitives**

MIH\_Net\_Bcst\_HO\_Commit.indication (

SourceIdentifier,

TargetMNGroupInfo,

LinkType,

TargetNetworksInfoList,

LinkActionExecutionDelay,

LinkActionsList

)

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| SourceIdentifier | MIHF\_ID | The remote MIHF, which sent the MIH\_Net\_Bcst\_HO\_Commit indication message. |
| TargetMNGroupInfo | GROUP\_INFO | Multimedia service (MMS) or multimedia program (MMP) information to identify the group of mobile nodes to which the ~~DO~~ networks recommend a han­dover. |
| LinkType | LINK\_TYPE | Contains target link type |
| TargetNetworksInfoList | LIST(TGT\_NET\_INFO) | This list contains information of recommended tar­get networks of type LinkType for assisting the mobile node to perform handover. |
| LinkActionExecutionDelay | UNSIGNED\_INT(2) | Time (in ms) to elapse before an action needs to be taken. A value of 0 indicates that the action is taken immediately. Time elapsed is calculated from the instance the command arrives until the time when the execution of the action is carried out. |
| LinkActionsList | LIST(LINK\_ACTION\_REQ) | A list of network initiated handover actions for the links. |

**7.4.27.2.3 When generated**

This primitive is generated by an MIHF upon receiving an MIH\_Net\_Bcst\_HO\_Commit indication message.

**7.4.27.2.4 Effect on receipt**

Upper layer entity take the applicable actions in the Link Actions List.

**8.6.3.23 MIH\_Net\_Bcst\_HO\_Commit indication**

The corresponding MIH primitive of this message is defined in 7.4.27.1.

This message is used by the MIHF on the ~~DO~~ network to recommend a handover from the DO network to a specific link and PoA of the bidirectional network

The requesting MIHF entity shall use a multicast MIHF ID to send this message.