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Title	The discovery of MBS information using portal server	
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Re:	Response to Recirculation Ballot #14c Announcement	
Abstract	The discovery of MBS information using portal server	
Purpose	Review and Adopt the suggested changes into P802.16e/D4-2004	
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1 Introduction

There is a strong interest to provide multimedia broadcast service(MBS) over IEEE 802.16. The MBS can be provided using IP multicast operation. Such multicast services allow unidirectional point-to-multipoint transmission of multimedia data (e.g. text, audio, video) from a single point of source to a multicast group in a multicast enabled area. Video conferencing service is one of the examples using multicast service.

In order to communicate with the multicast server, the Mobile Subscriber Station(MSS) should know the address of the MBS server. When a MSS is initiated, it needs to know each MBS URL. Each broadcast services have different application and URL may dynamically change. If a MSS connects to the MBS portal server, it can easily receives various MBS information(e.g. MBS server list, application). Since the MSS knows the MBS server address after connecting MBS portal server, it can get the multicast address and port of the MBS content from the content server. The MSS may use http request for MBS information to be sent to the MBS portal server.

The MBS information acquisition scenario is as described below.

- Content server discovery : get available MBS server addresses
- Get the contents information : send a http request to the MBS portal server and get an applicable response

The operational parameters can be delivered within the TFTP operation. The MSS shall download the 'SS configuration File' using TFTP on the MSS's Secondary Management Connection. When a MSS is initialized, the address of the available MBS portal servers at this domain can be delivered using the TFTP file which contains the various operational parameters.

For the purpose of supporting the inbound roamer, the MBS portal server address for that domain should be legible to all visited MSSs which are subscribed to other service providers. The MBS portal server can direct MSS to connect to another MBS server which provides the same service and located closer than the previous MBS server. Since the MBS portal server has the updated URL which might have changed, the MSS is always guaranteed to automatically receive updated URL. Additionally, it offers local server information of the specified area to the MSS. The local server has various information(e.g. shop information, map, traffic conditions). The MSS automatically and readily obtains information of the local area.

Hence, we also propose the TLV format of the MBS portal server to indicate the list of MBS content server.

2 Reference

- [1] IETF RFC2181, "Clarifications to the DNS Specification," R. Elz, R.Bush, July 1997.
- [2] IETF RFC1035, "DOMAIN NAMES – IMPLEMENTATION AND SPECIFICATION," P. Mockapetris, November 1987.
- [3] IETF RFC1123, "Requirements for Internet Hosts – Application and Support," R. Braden, October 1989.

3 Text Change

[Insert the following after section 9.1.2]

9.1.3 MBS portal Server URL

The URL list of the available MBS portal servers at this network can be delivered using the TFTP file. A MSS can get the information of MBS servers or contents from this portal server. The TLV format of MBS portal server can be found in the chapter 11.

[Add the following after section 11.2.7]

11.2.8. MBS portal Server URL

This URL can appear more than once to indicate multiple available MBS portal servers within the specified domain. The encoding of the URL shall follow the Domain Name Syntax defined in RFC 2181, RFC 1035 and RFC 1123 [1][2][3].

Type	Length	Value
8	Variable	URL