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| Re: | Editorial correction to use of the Term-of-Art 'backbone network' |
| Abstract | |
| Purpose | Editorial correction to use of the Term-of-Art 'backbone network' |
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# Editorial correction to use of the Term-of-Art 'backbone network'

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**Problem:**
Minor editorial problem with 'Term-of-art' from 802.16 definitions. Should be 'backbone network', not simply 'backbone'. Change all instances to conform to the 'Term-of-art' usage in the standard.

**Remedy:**
In 802.16e-2005, page 143, in the description paragraph for 'Action time', modify text as:

For HO, this value is defined as number of frames until the Target BS allocates a dedicated transmission opportunity for RNG-REQ message to be transmitted by the MS using Fast_Ranging_IE. Dedicated allocation for transmission of RNG-REQ means that channel parameters learned by the MS during Association of that BS stay valid and can be reused during actual Network Re-entry without preceding CDMA-based Initial Ranging. This parameter is decided by the Serving BS based on the information obtained from potential Target BSs over the backbone network.

In 802.16e-2005, page 156, in the description paragraph for 'Action time', modify text as:

For HO, this value is defined as number of frames until the Target BS allocates a dedicated transmission opportunity for RNG-REQ message to be transmitted by the MS using Fast Ranging IE. Non-zero value of this parameter means that potential Target BS estimates that channel parameters learned by the MS during Association of that BS stay valid and can be reused during actual Network Re-entry without preceding CDMA-based Initial Ranging. This parameter is decided by the Serving BS based on the information obtained from potential Target BSs over the backbone network.

In 802.16e-2005, page 234, in 6.3.22.1.1 Network topology advertisement, modify text as:

A BS shall broadcast information about the network topology using the MOB_NBR-ADV message. The message provides channel information for neighboring base stations normally provided by each BS's own DCD/UCD message transmissions. A BS may obtain that information over the backbone network. Availability of this information facilitates MS synchronization with neighboring BS by removing the need to monitor transmission from the neighboring BS for DCD/UCD broadcasts.

In 802.16e-2005, page 235, in the first paragraph, modify text as:

…The BS may negotiate over the backbone network with a BS Recommended for Association allocation unicast ranging opportunities….

In 802.16e-2005, page 238, in the second paragraph, modify text as:

The Serving BS will then coordinate the association procedure with the requested neighboring BSs in a fashion similar to association Level 1. However, when using this association type, the MS is required only to transmit the CDMA ranging code at the neighbor BS. Then the MS does not have to wait for RNG-RSP from the neighbor BS. Instead, the RNG-RSP information on PHY offsets will be sent by each neighbor BS to the

Serving BS (over the backbone network). The Serving BS may aggregate all ranging related information into a single MOB_ASC_REPORT message.

In 802.16e-2005, page 238, in the last paragraph on the page, modify text as:

Synchronization to Target BS downlink—MS shall synchronize to downlink transmissions of Target BS and obtain DL and UL transmission parameters. If MS had previously received a MOB_NBR-ADV message including target BSID, Physical Frequency, DCD and UCD, this process may be shortened. If the target BS had previously received HO notification from serving BS over the backbone network, then target BS may allocate a non-contention-based Initial Ranging opportunities.

In 802.16e-2005, page 242, in the fourth paragraph, modify text as:

Serving BS criteria for recommendation of target BS may include factors such as expected MS performance at potential target BS and MS QoS requirements. Serving BS may obtain expected MS performance at potential target BS through the exchange of ~~backbone~~ messages with that BS over the backbone network. Serving BS may negotiate location of common time interval where dedicated initial ranging transmission opportunity for the MS will be provided by all potential target BSs. This information may be included into MOB_BSHO-RSP message.

In 802.16e-2005, page 242, in the fifth paragraph, modify text as:

Dedicated allocation for transmission of RNG-REQ means that channel parameters learned by the MS during Association of that BS are considered valid during sufficient time and can be reused for actual Network Re-entry without preceding CDMA Ranging. Information such as indicators of link quality in the UL direction learned by the MS during Association may be provided by potential target BSs to the Serving BS over the backbone network.

In 802.16e-2005, page 243, in the first paragraph, modify text as:

Serving BS may notify one or more potential target BS over the backbone network of MS intent to handover. Serving BS may also send MS information to potential target BS over the backbone network to expedite handover.

In 802.16e-2005, page 243, in 6.3.22.2.4 Use of scanning and association results, modify text as:

MS may scan target neighbor BSs and optionally try association. If the target BS had previously received HO notification from serving BS over the backbone network, then target BS may place a Fast_Ranging_IE() (see 8.2.1.9.3.6, 8.3.6.3.9, and 8.4.5.4.21. Fast ranging Information Element) in the UL-MAP to allocate a non-contention-based Initial Ranging opportunity. MS shall scan target BS for UL-MAP that includes either a contention- or non-contention-based MS Initial Ranging opportunity.

In 802.16e-2005, page 243, in 6.3.22.2.5 Termination with the Serving BS, second paragraph, modify text as:

If the HO_IND_type field specifies serving BS release, the BS shall start the Resource retain timer from value Resource_Retain_Time provided by BS in REG-RSP, BSHO-REQ, or BSHO-RSP messages. The serving BS

shall retain the connections, MAC state machine, and PDUs associated with the MS for service continuation until the expiration of Resource retain timer. Regardless of Resource retain timer, the serving BS shall remove MAC context and MAC PDUs associated with the MS upon reception of a ~~backbone~~ message from the target BS, over the backbone network, indicating MS Network Attachment at target BS.

In 802.16e-2005, page 244, in last paragraph on the page, modify text as:

If an MS RNG-REQ includes a serving BSID and Ranging Purpose Indication TLV with Bit #0 set to 1, and the target BS had not previously received MS information over the backbone network, then the target BS may make an MS information request of the serving BS over the backbone network and the serving BS may respond. Regardless of having received MS information from the serving BS, the target BS may request MS information from another network entity via the backbone network.

In 802.16e-2005, page 245, in the third paragraph, modify text as:

… For a security keying process that has not been determined to be omitted in the HO Process Optimization TLV settings, if MS RNG-REQ includes an serving BSID and Ranging Purpose Indication TLV with Bit #0 set to 1, and target BS has received a ~~backbone~~ message over the backbone network containing MS information, MS and target BS shall use the embedded TLV PKM-REQ information and the reauthorization process as defined in 7.2.

In 802.16e-2005, page 245, in the sixth paragraph, modify text as:

If MS RNG-REQ includes a serving BSID and Ranging Purpose Indication TLV with Bit #0 set to 1, and target BS has received a ~~backbone~~ message over the backbone network containing MS information, the target BS may use MS service and operational information obtained over the backbone network to build and send a REG-RSP management message that includes service flow remapping information in SFID, New_CID and Connection_Info TLVs.

In 802.16e-2005, page 245, in the last paragraph, modify text as:

During HO, the target BS may notify the MS, through the Bit #7 MS DL data pending element of the HO Process Optimization TLV item in RNG-RSP, of post-HO re-entry MS DL data pending. Upon MS successful re-entry at the target BS, now the new serving BS, the new serving BS can transmit forwarded data (called “pre-HO pending MS DL data”) to the MS. After completing reception of any HO pending MS DL data retained and forwarded, the MS may re-establish IP connectivity and the new serving BS may send a ~~backbone~~ message over the backbone network to request the old serving BS or other network entity to stop forwarding pre-HO pending MS DL data.

In 802.16e-2005, page 246, in the second paragraph, modify text as:

When the target BS has detected a failed HO entry/re-entry attempt, it may inform the serving BS of HO failure through a ~~backbone~~ message over the backbone network indicating Handover Failure.

In 802.16e-2005, page 264, in the second paragraph, modify text as:

After transmitting the Broadcast Paging message with Action Code ‘Perform Ranging’ or ‘Enter Network’, if the BS does not receive RNG-REQ from the MS paged until the next MS Paging Listening Interval, the BS shall retransmit the Broadcast Paging message. Every time the BS retransmits the Broadcast Paging message, it decreases the predefined ‘’Paging Retry Count’ by one. If the BS does not receive RNG-REQ from the MS until the ‘Paging Retry Count’ decreases to zero, the BS determines that the MS is unavailable, and shall send a ~~backbone~~ message over the backbone network to indicate that the list of MSs in Idle Mode shall be updated in all BSs that belong to the same paging group.

In 802.16e-2005, page 266, in 6.3.24.8.2.1 Secure Location Update process, first paragraph, modify text as:

…If the target BS responds with a successful Location Update Response=0x01, Success of Location Update, the target BS shall notify the Paging Controller via the backbone network of the MS new location information, the MS shall assume the Paging Group ID of the target BS, and the Paging Controller may send a ~~backbone~~ message over the backbone network to inform the BS at which the MS entered Idle Mode that the MS has transitioned to a different Paging Group….

In 802.16e-2005, page 267, in 6.3.24.9 Network Re-Entry from Idle Mode, third paragraph, modify text as:

If MS RNG-REQ includes an Ranging Purpose Indication TLV with Bit #0 set to 1 and Paging Controller ID TLVs, and target BS had not previously received MS information over the backbone network, then target BS may make an MS information request of Paging Controller over the backbone network and Paging Controller may respond. Regardless of having received MS information from Paging Controller, target BS may request MS information from another network management entity via the backbone network.

In 802.16e-2005, page 268, in the third paragraph, modify text as:

If MS RNG-REQ includes Ranging Purpose Indication TLV with Bit #0 set to 1 and Paging Controller ID TLVs, and target BS has received a ~~backbone~~ message over the backbone network containing MS information, the target BS may use MS service and operational information obtained over the backbone network to build and send a REG-RSP management message that includes service flow remapping information in SFID, New_CID, and Connection_Info TLVs.

During network re-entry, the target BS may notify the MS, through the Bit #7 MS DL data pending element of the HO Process Optimization TLV item in RNG-RSP, of post- network reentry MS DL data pending. Upon MS successful re-entry at target BS, now new serving BS, and new serving BS completing reception of any network re-entry pending MS DL data retained and forwarded, MS may re-establish IP connectivity and the new serving BS may send a ~~backbone~~ message over the backbone network to request the old serving BS or other network entity to stop forwarding pre-HO pending MS DL data.

Network entry/re-entry process completes with establishment of Normal Operations.

The target BS shall notify the Paging Controller via the backbone network of MS successful network re-entry and the Paging Controller may send a ~~backbone~~ message over the backbone network to inform the BS at which the MS entered Idle Mode that the MS has resumed Normal Operations at the new serving BS.

In 802.16e-2005, page 791, in Figure E.2, modify the text in the boxes as:

Send ~~Backbone~~ messages over the backbone network to recommended target BSs to pre-notify about impending HO of the MS

Receive ~~Backbone~~ messages over the backbone network from recommended target BSs for the HO

Send ~~Backbone~~ Message over the backbone network to notify selected target BS

In 802.16e-2005, page 793, in Figure E.4, modify the text in the boxes as:

Exchange ~~Backbone~~ messages over the backbone network for pre-notifying target BS to indicate a HO for the MS

In 802.16e-2005, page 815, in G.1.1 Entities, first paragraph, modify text as:

The network reference model includes groups of BS units providing network service (not necessarily contiguous) to authorized MS in a geographic region. A group of BS units that share administrative affiliation, and are connected by a backbone network (wired or unwired) are referred to as a provider network. Multiple provider networks of varying design, performance, and ownership/administration may coexist in the same region.

In 802.16e-2005, page 815, in G.1.1 Entities, last paragraph the page, modify text as:

Figure G.1 shows an example where two BS are connected to an operator backbone network. BS #1 is the serving BS for an MS. BS #2 is the neighbor BS. If the MS moves closer to BS #2, as depicted by the shaded arrow, BS #2 might become a target BS for a handover.