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| Project | **IEEE 802.21b**  **<https://mentor.ieee.org/802.21>** |
| Title | **Suggested Remedies for 802.21b: Radio\_Get\_Parameters** |
| DCN | 21-11-0030-01-bcst |
| Date Submitted |  |
| Source(s) | Antonio de la Oliva, Yoshihiro Ohba, Christian Niephaus, Johannes Lessmann |
| Re: |  |
| Abstract | The functionality provided by Radio\_Get\_Capabilities can be included in Link\_Capability\_Discover primitive. The proposed change aims at replacing current Radio\_Get\_Capabilities primitive from .21b draft v2. |
| Purpose | Proposes changes in the current draft |
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**Changes Required**

**7.3.9 Link\_Capability\_Discover**

**7.3.9.1 Link\_Capability\_Discover.request**

**7.3.9.1.1 Function**

This primitive is used by the MIHF to query and discover the list of supported link-layer events and linklayer commands.

**7.3.9.1.2 Semantics of service primitive**

No primitive parameters exist for this primitive.

Link\_Capability\_Discover.request ()

**7.3.9.1.3 When generated**

This primitive is generated by the MIHF when it needs to receive link-layer event notifications and learn about which link-layer commands the lower layer can support.

**7.3.9.1.4 Effect on receipt**

The recipient responds immediately with Link\_Capability\_Discover.confirm primitive.

**7.3.9.2 Link\_Capability\_Discover.confirm**

**7.3.9.2.1 Function**

This primitive returns the result of the query to discover link-layer capability.

**7.3.9.2.2 Semantics of service primitive**

Link\_Capability\_Discover.confirm(

Status,

SupportedLinkEventList,

SupportedLinkCommandList,

SupportedLinkActionsList

)

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Data type** | **Description** |
| Status | STATUS | Status of operation. Code 3 (Authorization Failure) is not applicable. |
| SupportedLinkEventLista | LINK\_EVENT\_LIST | List of link-layer events supported by the link layer. |
| SupportedLinkCommandList | LINK\_CMD\_LIST | List of link-layer commands supported by the link layer. |
| SupportedLinkActionsList | LINK\_ACTION\_LIST | (Optional) Indicate which link actions are supported in the link |

**7.3.9.2.3 When generated**

This primitive is generated in response to a Link\_Capability\_Discover.request primitive.

**7.3.9.2.4 Effect on receipt**

The recipient examines the returned event and command list and learns about link-layer capability. However, if Status does not indicate “Success” the recipient performs appropriate error handling.

MODIFY TABLE F.4 ADDING THE FOLLOWING DATA TYPE

|  |  |  |
| --- | --- | --- |
| LINK\_ACTION\_LIST | BITMAP(32) | A list of link actions.  Bitmap Values:  Bit 0: Reserved  Bit 1: LINK\_DISCONNECT  Bit 2: LINK\_LOW\_POWER  Bit 3: LINK\_POWER\_DOWN  Bit 4: LINK\_POWER\_UP  Bit 5: LINK\_CONFIGURE  Bit 6-31: (Reserved) |