IEEE P802.11
Wireless LANs

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| --- |
| [IP address configuration during association] |
| Date: 2011-07-20 |
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|  |  |  |  |  |

Abstract

[place document abstract text here]

This text is based on Draft P802.11REVmb\_D9.0

**802.11 Document Template Instructions**

To properly identify your Word document as an IEEE 802.11 Submission

there are 5 steps that you must complete, and 9 data fields that you must fill in.

Step 1. Obtain a document number (has the form yy/xxxx).

Step 2. Title page (above) - fill in the document subject title text, full date (in the ISO 8601 format of YYYY-MM-DD), the full author(s) details and the abstract text (a total of 4 data fields).

Step 3. Menu select File, Properties. Fill in the 5 data fields:

 Title field = document designator

 example "doc.: IEEE 802.11-04/9876r0" , or

 "doc.: IEEE 802.11-04/9876r2"

 Author field = first author’s name

 Company field = first author’s company name

 Keywords field = venue date (month year, e.g. January 2005)

 Comments field = first author, company

Step 4. Update the header and footer: To do this, menu select View, Normal, then menu select View, Page Layout (called View, Print Layout in some versions of Word). Switching the view of the document automatically updates all fields in the header and footer. Save the file with the final headers and footers.

Step 5. Delete this page of instructions.

# MS Word Submission Preparation Summary:

Things to do: 5

Fields to fill in: 9

Recommendations:

a) Always create a new document using the template, rather than using someone else's document.

b) For quick and easy creation of new 802.11 submissions, place the 802.11 template files in the template folder area on your computer. Typical locations are:

 c:\Program Files\Microsoft Office\Templates\802.11

or,

 c:\Documents and Settings\User Name\Application Data\Microsoft\Templates\802.11

To create a new submission, menu select File, New, then select the appropriate 802.11 template file.

c) **When you update or revise your document**, remember to check all 5 fields in step 3 for the correct values and follow steps 3 through 4 again to ensure that the header and footer are updated with the revised field values.

rev: de2004-11-18

***Insert the row for Bits 49-50 into Table 8-102 as follows (note the entire table is not shown here):***

8.4.2.1 General

Table 8-102—Capabilities field

|  |  |  |
| --- | --- | --- |
| Bits | Information | Notes |
| 49-50 | IPconfigduringAssoc | When dot11IPconfigduringAssocActivated is true, the IPconfigduringAssoc field is set to:1 to indicate the STA supports IPv4 only address configuration during association;2 to indicate the STA supports IPv6 only address configuration during association3 to indicate the STA supports IPv4 and IPv6 address configuration during associationWhen dot11IPconfigduringAssocActivated is false, the IPconfigduringAssoc field is set to 0 to indicate the STA does not support this capabilityas described in 11.2x.y |

***Insert element identifier (IDs) 143 through 145 and change the Reserved row in Table 8-53 as follows (note the entire table is not shown here):***

8.4.2.1 General

|  |  |  |  |
| --- | --- | --- | --- |
| Information Element | Element ID | Length (in octets) | Extensible |
| IP address configuration during association | 143 | 3 | Yes |
| IPv4 address | 144 | Variable |  |
| IPv6 address | 145 | variable |  |

***Insert the following new subclauses after 8.4.2.99****:*

8.4.2.100 IP address configuration during association element

|  |  |  |
| --- | --- | --- |
| Element ID | Length | IP address configuration  |

Octet: 1 1 1

|  |  |  |
| --- | --- | --- |
| IP Address Configuration Value | Name | Description |
| 1 | IPv4 address supported | Indicates that IPv4 address can be configured during association |
| 2 | IPv6 address supported | Indicates that IPv6 address can be configured during association |
| 3 | IPv4 and IPv6 addressess supported | Indicates that IPv4 and IPv6 addresses can be configured during association |
| 0 | Feature not supported |  |

8.4.2.101 IPv4 address configuration Information Element

|  |  |  |
| --- | --- | --- |
| Element ID | Length | IPv4 address configuration  |

The Length is a one-octet field whose value is 28.

The format of the IPv4 address configuration field:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IPv4 address | Subnet Mask | D-GW IP address | DNS IP address | Lease expiration time | D-GW MAC address |

Octets: 4 4 4 4 4 6

8.4.2.102 IPv6 address configuration Information Element

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IASP | Prefix Length | IPv6 addr/Prefix | D-GW IP address | DNS IP address | Lease expiration time | D-GW MAC address |

Octet: 1 1 16 16 16 4 6

The format of the IPv6 Addressing Scheme Properties (IASP) is as follows:

Bits: 1 1 1 5

|  |  |  |  |
| --- | --- | --- | --- |
| I-bit | M-bit | O-bit | Reserved |

I-bit set to zero indicates that the IPv6 addr/Prefix field includes an IPv6 address. When this bit is set to zero, the Prefix Length field is set to 128.

I-bit set to 1 indicates that the IPv6 addr/Prefix field includes an IPv6 prefix.

M-bit is as defined in RFC2461.

O-bit is as defined in RFC2461.

The prefix Length field is set to either 128, when the I-bit is set to zero, or to the actual length of the prefix used in the access network.

The IPv6 addr/Prefix field contains an IPv6 address as defined in RFC2460 when the I-bit is set to zero, or an IPv6 prefix when the I-bit is set to 1. When the I-bit is set to 1, only the leading number of bits indicated by the Prefix Length field are taken into consideration, the rest are ignored.

D-GW IP address contains the IPv6 address of the Default Gateway.

DNS IP address contains the IPv6 address of the DNS server.

The Lease Expiration Time field indicates the expiration time of the IPv6 address as defined in RFC2461.

The D-GW MAC address indicates the MAC address of the Default Gateway.

**11.2x.y IP address configuration during association**

STAs indicate their support for IP address configuration during association by setting the dot11IPconfigduringAssocActivated MIB variable to true. When dot11IPconfigduringAssocActivated is true, STAs include the IPconfigduringAssoc element in Probe Response frames and non-AP STAs include the IPconfigduringAssoc element in Probe Request and Association Request frames.

**References:**