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| Liaison from the IEEE 802.11 Working Group to ISO/IEC JTC1 SC6 and its National Body members in relation to identifiers in proposed WAPI standard |
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Abstract

This document contains a proposed liaison from the IEEE 802.11 Working Group to ISO/IEC JTC1 SC6 and its National Body members.

The liaison is based on:

* ISO/IEC document ISO/IEC JTC 1/SC6 N14435, which is a draft version of the proposed WAPI standard
* ISO/IEC document ISO/IEC JTC 1/SC6 N14435, which is a liaison from IEEE 802.11 WG to ISO/IEC JTC1/SC6 in Dec 2010
* ISO/IEC document ISO/IEC JTC 1/SC6 N14511 which is a document from the Swiss NB in response to N14435
* ISO/IEC document ISO/IEC JTC 1/SC6 N14544, which is a document from the Chinese NB in response to N14435

The liaison will be considered by the IEEE 802.11 Working Group and IEEE 802 ExCom in March 2011.

**Liaison from the IEEE 802.11 Working Group
to ISO/IEC JTC1 SC6 and its National Body members
in relation to identifiers in proposed WAPI standard**

The IEEE 802.11 WG sent a liaison document to ISO/IEC JTC1/SC6 in December 2010, which was distributed to the SC6 National Bodies as N14494. In this liaison document the IEEE 802.11 WG noted potential conflicts between IE and status code allocations in the current version of the IEEE 802.11 standard (and its ratified amendments) and the draft version of the WAPI specification, which is documented in N14435.

These conflicts are unlikely to ever be a problem for IEEE 802.11 or ISO/IEC 8802-11 compliant systems because such systems do not support WAPI and there are no known proposals to incorporate WAPI into these standards.

The draft WAPI specification currently references ISO/IEC 8802-11:2005, which is the same as IEEE 802.11-2003. This eight year old standard, which was actually replaced by the IEEE in 2007, does not include the IE and status codes that cause the conflicts. Therefore, WAPI compliant systems, as currently specified, will not have a problem either.

However, WAPI systems will need to resolve the conflicts if they ever want to take advantage of 802.11e (QoS) and 802.11k (Wireless Network Measurement) functionality. The conflicts will be highlighted when ISO/IEC 8802-11:2005 is obsoleted by the upcoming IEEE 802.11 revision, which is scheduled for ratification by the IEEE in the next year or so.

The Swiss National Body (in N14511) and the Chinese National Body (in N14544) both suggested a method by which the IE conflict could be mitigated. The method used “parameter checking” to differentiate between WAPI and 802.11k IEs.

We agree that this method is a reasonable short term work around and that a note should be included in ISO/IEC 20011 documenting the work around. There is no need for any equivalent notes to be included in the IEEE 802.11 standard or the IEEE 802.11 ANA database because the IEEE 802.11 standard is not affected by the conflicts.

It appears that a similar method cannot be used to resolve the status code conflict. However, we suspect this conflict will have less impact in real systems.

In the longer term, maximum flexibility will be attained by WAPI transitioning to use its own non conflicting IE and status codes. There are various methods that could be specified in ISO/IEC 20011 to implement such a transition.

The IEEE 802.11 ANA has reserved IE = xx for use in ISO/IEC 20011 as part of any transition process. The IEEE 802.11 ANA has similarly reserved two status codes (yy and zz) for use by WAPI. Please confirm whether or not SC6 requires the IE and the status codes to remain reserved.

We note that N14544 asserts that “IEEE 802.11k created a conflict with WAPI”, suggesting that the IEEE 802.11 WG was in some way responsible for the conflict. We refute this conclusion on the basis that the IEEE has always been the registration authority for IEEE 802.11, and that it has always been the registration authority, either by explicit agreement or by default, for ISO/IEC 8802-11.

N14544 also asserts that WAPI is supported in about one billion chip sets per annum as part of an argument concerning the need to support legacy equipment. It is true that most of the WLAN chipsets manufactured today are capable of supporting WAPI because WAPI can be implemented in software, if required, on almost all modern WLAN chipsets. However, WAPI is not used in the vast majority of WLAN systems; it is used or implemented almost nowhere outside China, and there is little evidence that it is deployed in practice inside China, even when implemented by the infrastructure and clients. We believe any legacy problem today is limited to some deployments in China.

Yours sincerely,

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Chairman of IEEE 802.11 Working Group