The Interoperability Framework for e-Government
Proposal for Changes to Interoperability Areas and Interoperability Standards

Please return the completed form to **ifcg@ogcio.gov.hk** on or before **8 July 2024**

Name of proposer: Contact email:

Organisation: Contact telephone:

Summary of change proposal:

Details of change proposal[1]:

(Please use the templates in Annex A to prepare detail change proposals for adding or changing interoperability areas and interoperability standards, and also refer to Annex B for an example of change proposal)

End of Change Proposal

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[1] Other supplementary documents may be attached to the proposal as appropriate

Templates for proposing changes to the Interoperability Framework for e-Government

Template A: Affected Interoperability Area

Interoperability Domain[2]		
Interoperability Area		**Is this a new area?**
Usage of Interoperability Area		
Complete list of Recommended Standard(s) for this area	*(Please use Template B to provide details of each **new** or **modified** standard. Modifications include changes of version number)*	
Emerging Standards worth consideration for future adoption		
Remarks on choice between multiple recommended standards and remarks on how to address interoperability issues in an environment where different standards are used by different B/Ds		

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[2] Please refer to the "*Analysis Underpinning the Recommendations on Interoperability Framework for e-Government version 22.0*" document for the list of domains and the prevailing interoperability areas for consideration at
https://www.ogcio.gov.hk/en/our_work/infrastructure/e_government/if/interoperability_framework.html.

Template B: New or modified Recommended Standard

Interoperability Area	
Technical Standard	
Description	
Rationale for selection	
Maturity	
Forward outlook	
Version and rationale for version	
Limitations on the use of this standard	

Example

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Summary of change proposal:

1. To replace WPA with WPA2 in the area "Wireless LAN security"

2. To add a new interoperability area of "Quick Response (QR) Code" under the "Information Access and Interchange Domain" (Section 7.3 of The Interoperability Framework for e-Government [S18] Version 22.0).

Details of change proposal:

Template A: Affected Interoperability Area

Interoperability Domain	Interconnection Domain	
Interoperability Area	Wireless LAN security	**Is this a new area?** N
Usage of Interoperability Area	To encrypt data being transmitted over wireless LAN.	
Complete list of Recommended Standard(s) for this area	*(Please use Template B to provide details of each new or modified standard. Modifications include changes of version number)* WPA2 **(see Template B)**	
Emerging Standards worth consideration for future adoption	None	
Remarks on choice between multiple recommended standards and remarks on how to address interoperability issues in an environment where different standards are used by different B/Ds	Nil	

Template B: New or modified Recommended Standard

Interoperability Area	Wireless LAN security
Technical Standard	Wi-Fi Protected Access 2 (WPA2)
Description	The WPA specification used RC4 cipher. Subsequent standard WPA2 used AES cipher. WPA2 is better in security and is still a de-facto setandard for wireless security. WPA has been retained in IF for some time because it takes time for hardware upgrade to support WPA2. Since March 2006, WPA2 has become a mandatory feature for all new Wi-Fi CERTIFIED products[3].　Currently, WPA2 has been supported by all common hardware and it is appropriate to remove WPA from security point of view.
Rationale for selection	Nil
Maturity	Nil
Forward outlook	WPA2 standard will continue to be monitored by Wi-Fi Alliance.
Version and rationale for version	WPA2 is a mature version which is supported by mobile devices, desktop operating systems, and hardware network appliances from various vendors.
Limitations on the use of this standard	None.

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[3] Reference:
https://www.wi-fi.org/news-events/newsroom/wpa2-security-now-mandatory-for-wi-fi-certified-products

Template A: Affected Interoperability Area

Interoperability Domain	Information Access and Interchange Domain	
Interoperability Area	Quick Response (QR) Code	**Is this a new area?** Y
Usage of Interoperability Area	Since QR code has been invented in 1994 aiming to track vehicles during manufacturing process, it has expanded beyond the initial industrial tracking purpose progressively. Nowadays, it is used by the general public to display text, add vCard contact, open web page, make on-line payment, join social network, obtain promotion offer, etc. The use of QR code is becoming more popular in recent years because of the higher usage rate of camera-embedded mobile devices, together with the wide availability of mobile apps that equipped with QR code scanning capability.	
Complete list of Recommended Standard(s) for this area	ISO/IEC 18004:2015	
Emerging Standards worth consideration for future adoption	None	
Remarks on choice between multiple recommended standards and remarks on how to address interoperability issues in an environment where different standards are used by different B/Ds	Nil	

Template B: New or modified Recommended Standard

Interoperability Area	Quick Response (QR) Code
Technical Standard	ISO/IEC 18004:2015 Information technology — Automatic identification and data capture techniques — QR Code bar code symbology specification
Description	ISO/IEC 18004:2015 standard defines the requirements for the symbology known as QR Code. It specifies the QR Code symbology characteristics, data character encoding methods, symbol formats, dimensional characteristics, error correction rules, reference decoding algorithm, production quality requirements, and user-selectable application parameters (www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber =62021).
Rationale for selection	QR codes provide the features of high capacity encoding of data, small printout size, readable from any direction in 360 degree, and dirt and damage resistant.
Maturity	ISO/IEC 18004:2015 standard was published on 16 February 2015.
Forward outlook	ISO/IEC will continue to develop ISO/IEC 18004:2015 standard.
Version and rationale for version	ISO/IEC 18004:2015 standard is the latest version published by ISO/IEC.
Limitations on the use of this standard	None

End of Change Proposal