Question:	7/17	**Proposed new ITU-T Recommendation**	Geneva, 29 August – 7 September 2016	
Reference and title:	X.srfb, *Security requirements and framework for Big Data analytics in mobile Internet services*			
Base text:	TD 2960 Rev.2 Annex 2		**Timing:**	2018-09
Editor(s):	Feng Gao (China Unicom); Nan Jiang (China Unicom); Jongyoul Park (ETRI); Junjie Xia (China Unicom)		**Approval process:**	AAP

Scope:

This Recommendation provides security framework and requirements for big data analytics in mobile Internet services. The intent of this Recommendation is to study the challenges brought forward by big data analytics, and hence their specific security requirements for the Mobile Internet services as well as the security framework. The scope of this Recommendation will focus on security threats analysis, security requirements, and security framework.

Summary:

Currently, according to the computation and storage ability improvements in the mobile devices and also with the enhanced transmission rate in telecommunication networks, the mobile Internet services are more and more popular and widely used. Due to the frequent interaction among the users, multiple types of devices, networks, and services providers, in a broad range of mobile Internet service areas, data is growing at unprecedented scale.

In mobile Internet service, the increase of cost efficiency is important, but the next generation of mobile Internet services need a new business insight. Since the data source is not fixed and will be diverse, the analysis system could be used by malicious users or attackers to achieve illegal or unethical purposes. Mobile Internet services obtain big data from multiple sources and multiple data dimensions with characteristics including scale (volume), diversity (variety), high speed (velocity) and possibly others like credibility (veracity) or business value. Such big data analysis now drives nearly every aspect of mobile Internet services to improve service quality and user experience. According to the big data aggregation and analytics, the service provider can analyse user's interests more effectively and predict user's expectation more accurately thus significantly improve and add value to their services, for example:

- Mobile search application: to precision target users' search intention timely;
- Mobile financial application: to customize users' financial solution timely;
- Mobile application recommendation: to improve successful rate of recommendation timely.

As the new technology develops, big data analytics will bring new security issues comparing to previous data analytics in mobile Internet services domain, such as, how to secure storage big volume data with ensuring consistency, availability, tolerance and synchronism; how to preserve availability, integrity, and confidentiality when collecting, storing, and analysing big data. Without comprehensive security mechanism, the unsecure/spiteful big data analysis will do harm to mobile Internet service provider's business security, user's data security, and even user's privacy. To ensure secure big data analysis in mobile Internet services, consequently, the security requirements need to be analysed exhaustively and the overall security framework need to be established.

Recommendation ITU-T X.srfb will mainly analyse the security requirements of big data analytics in mobile Internet services, and provide a security framework.

Relations to ITU-T Recommendations or to other standards (approved or under development): ITU-T Y.3600-series supplement 40, Supplement on big data standardization roadmap ITU-T Y.3600, Big data – Cloud computing based requirements and capabilities ITU-T Y.BigDataEX-reqts, Big data exchange framework and requirements ITU-T Y.BdaaS-arch, Functional architecture of Big data as a Service
Liaisons with other study groups or with other standards bodies: - ITU-T SG13, ISO/IEC JTC 1/SC 27, ISO/IEC JTC 1/WG9, IETF
Supporting members that are committing to contributing actively to the work item: - China Mobile, China Unicom, ETRI, ZTE.

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