Jukka S. Rannila OPINION 1 (12)

www.jukkarannila.fi 27 July 2020 Public / WWW

TO: cyberstrategynsw@customerservice.nsw.gov.au New South Wales Government (NSW) Australia 2020 NSW Cyber Security Strategy First of all, a lot of thanks to New South Wales Government (NSW) for organising this important consultation. This opinion represents an opinion of an individual citizen, not any legal entity. This opinion does not contain: any business secrets any trade secrets any confidential information. This opinion is public. PDF file of this opinion can be added to a relevant web page. Annex 1 holds information about previous Australian consultations. Annex 2 holds information about copyright, licence and disclaimers. Best Regards, Jukka S. Rannila citizen of Finland signed electronically [Continues on the next page]

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European Union context

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There are some European Union agencies which could be assessed.

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European Union Agency for Cybersecurity (ENISA)

47 https://www.enisa.europa.eu/

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Body of European Regulators for Electronic Communications (BEREC)

https://berec.europa.eu/

50 51 52

European Union Agency for the Operational Management of Large-Scale IT

https://eulisa.europa.eu/

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These European Union agencies working with cybersecurity issues and their work could be assessed by the New South Wales Government (NSW).

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Another organisation to be assessed

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European Centre of Excellence for Countering Hybrid Threats

https://www.hybridcoe.fi/

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European Centre of Excellence for Countering Hybrid Threats could be assessed by the New South Wales Government (NSW).

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One centre for informing different information technology problems

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I have advocated one centre for informing different information technology problems. At the moment there are several possibilities for informing different information technology problems.

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Examples for informing information technology problems are following:

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- Spamhouse Project ¹ for tracking email spammers and spam-related activity
- SpamCop² service for reporting spam
- Common Vulnerabilities and Exposures (CVE) ³ for informing information-security vulnerabilities and exposures
- Forum of Incident Response and Security Teams ⁴
- Computer emergency response team (CERT) ^{5 6} also national CERT teams
- CSIRT Virus Watch
- 1 https://www.spamhaus.org
- 2 https://www.spamcop.net
- 3 http://cve.mitre.org
- 4 https://www.first.org
- 5 https://en.wikipedia.org/wiki/Computer emergency response team
- https://www.cert.org/
- http://www.csirt.org

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Scamdex⁸

81 82 providers of different technology solutions have their own reporting services providers of different information technology security solutions have their own

services for informing different information technology problems.

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reporting services

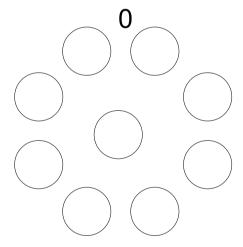
Proposal: There could be some work for creating just one service for informing all information technology problems.

Opinion: At the moment there are too many independent organisations and

Proposal: Possibly there could be just one non-profit organisation which handles all information technology problems.

Proposal: Different stakeholders could join one non-profit organisation which works with all information technology problems.

Different systems without connections



Here I note that different stakeholders have their own information systems which may not be connected to other information systems.

Proposal: Different informations systems provided by different stakeholders could be assessed.

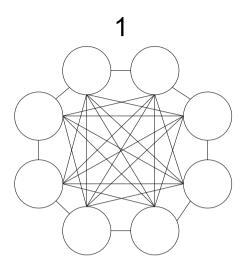
Different systems with complex connections

8 http://www.scamdex.com

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Generally speaking different information systems evolve and there can be several systems with complex connections.

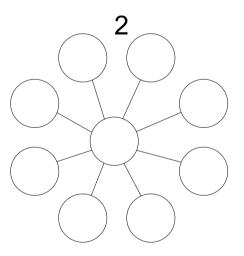
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Different systems with one central system

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Next option is top have one central system with connection to all other systems.

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Problem with this option is dependency to just one central system which can have different problems. This means that problem in one central system affects immediately other systems.

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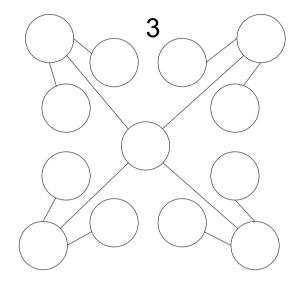
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Hierarchy between system

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I have advocated several times hierarchy between system which means that there can be one central systems with different subsystems. This option means that a problem with one central systems does not affect all system at the same time.

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What this means for NSW?

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Proposal: NSW could work with different stakeholders for creating just one non-profit organisation which could collect together all information about different information technology problems.

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Proposal: NSW could work with different stakeholders for creating one central service for informing different about information technology problems.

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Proposal: One central service can mean different hierarchies for different information systems.

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About different standards

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I have proposed several times to use *open horizontal standards* when developing different information system.

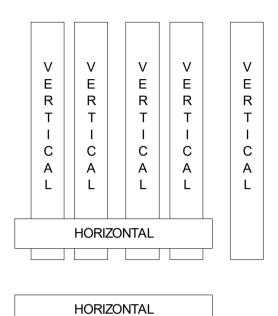
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Favouring open standards / Favouring horizontal standards

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There are differences between horizontal and vertical standards. A simple example is naturally email solutions. There are several vertical standards when creating technically email solutions. Then there are horizontal standards which enable sending messages between technically different email solutions.

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Proposal: There could be assessment of vertical and horizontal standards.

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Proposal: Using horizontal standards could be favoured when creating different information systems.

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Horizontal standards enables technological solutions which can work together. Horizontal standards hides different complexities in information systems.

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Opinion: The number of redundant standardisation efforts should be minimal.

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Proposal: There could be separation of horizontal standards and vertical standards.

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Proposal: There could be different standardisation efforts to horizontal standards and vertical standards.

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Personally I have advocated using different horizontal standards. For example email standards (horizontal) are implemented with very different technologies (vertical).

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Here we can note some problems:

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- some systems are based on **de-facto** standards
 - some systems are based on **de-jure** standards
 - there can be confrontations between **de-facto** and **de-jure** standards
- there can be a monopoly situation in some domain
- some standards may inhibit possible actions of some stakeholders
 - there can be a standard war on some domains
- standards have different life-cycles
 - systems have different life-cycles
 - there can be mismatches between different life-cycles
- there can be failed standards
 - there can be deprecated standards.

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It is quite normal situation in the information technology field that there are competing standards for some application field. Therefore there are all the time ongoing "standards wars" or "format wars". The information technology standards tend to be interrelated and one "standards war" or "format war" can lead to another similar situation.

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I have advocated open standards even though in some cases open standards are not de facto standards. In practice public sector has very important role, when some standards are competing in the market place. Because public sector has a considerable power when buying/developing information systems and therefore public sector can sometimes direct markets to certain standards. Therefore there should be serious vigilance when assessing different standards and "standards" in some application fields.

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There are different standards setting organisations on the information technology field. One list ⁹ of these standards setting organisations is provided by ConsortiumInfo.org.

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One warning can be said about standards setting organisations. All standards setting organisations are not successes based on several factors and there can may irrelevant standards setting organisations. Market situation on different markets varies a lot based on different factors.

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Proposal: Current standardisation (e.g. list provided by ConsortiumInfo.org) efforts by different standard setting organisations could be assessed carefully.

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Personally I have advocated using different horizontal standards. For example email standards (horizontal) are implemented with very different technologies (vertical).

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Proposal: Governments should especially concentrate on horizontal standards.

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Proposal: Some government agencies could apply for memberships of different standard setting organisations which develop especially horizontal standards.

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Proposal: Government agencies should not be passive by-standers when different horizontal standards are developed.

 $9 \quad Standard \ Setting \ Organizations \ and \ Standards \ List, \\ \underline{www.consortiuminfo.org/links/linksall.php}$

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Proposal: Government agencies could financially support development of horizontal standards.

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Proposal: There could some guidance for using open horizontal standards on different application fields.

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What this means for NSW?

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Proposal: NSW could work with different stakeholders for creating different <u>open</u> <u>horizontal standards</u> related to cybersecurity problems.

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Note: There can be some global standards which could be assessed.

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An example for cooperation: Web feeds (RSS and Atom)

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I have advocated usage of web feeds 10 on several previous opinion documents. Actually there are two standards for web feeds: RSS 11 and Atom 13 14 15 .

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Proposal: Web feeds (RSS and/or Atom) could be advocated when developing different informations systems.

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Proposal: Web feeds (RSS and/or Atom) should be used extensively for providing (real-time) information for different stakeholder(s) (communities).

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Proposal: There can be different web feeds (RSS and/or Atom) for different stakeholder(s) – having just one web feed (RSS and/or Atom) may not be a feasible solution.

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Proposal: Several web feeds (RSS and/or Atom) can be based on different viewpoints.

254255

It can be easier to create web feeds in different information systems since web feeds enable connections without direct system-to-system connections.

256257

- 10 https://en.wikipedia.org/wiki/Web feed
- 11 http://www.rssboard.org/rss-specification, RSS 2.0 Specification
- 12 https://en.wikipedia.org/wiki/RSS, Wikipedia / RSS
- 13 https://en.wikipedia.org/wiki/Atom (standard), Wikipedia / Atom (standard)
- 14 https://tools.ietf.org/html/rfc4287, The Atom Syndication Format
- 15 https://tools.ietf.org/html/rfc5023, The Atom Publishing Protocol

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It can be noted, that different back-office systems (with a wide variety of different technologies) can implement RSS standards, and these RSS feeds can be used in the front-office systems. With this kind solutions front-office systems dont need direct system-to-system communications with back-office systems.

More technical consultations?

Based on answers (this consultation generally) there could be more technically oriented consultations. Previously mentioned issues (this opinion) could be detailed for new technically oriented consultations.

Proposal: More technically oriented consultations could be organised after this consultation.

Good luck !!!!!!!

This opinion is quite limited and probably other opinions will result some constructive ideas.

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284 285 286	General web page for my opinions			
287 288	General web page for my opinions can be found from the following address:			
289 290	http://www.jukkarannila.fi/lausunnot.html			
291 292 293	Information about previous Australian consultations:			
293	EN: Opinion 54: Government Content Management System			
295	http://www.jukkarannila.fi/lausunnot.html#nro_54			
296	11.1.p.//www.jukkaramma.11/1ausumot.mum#mo54			
297	EN: Opinion 56: National Identity Proofing Guidelines			
298	http://www.jukkarannila.fi/lausunnot.html#nro 56			
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300	EN: Opinion 57: Updating the Commonwealth Procurement Rules			
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311	EN: Opinion 79: PCEHR (Information Commissioner Enforcement Powers) Guidelines 2015			
313	http://www.jukkarannila.fi/lausunnot.html#nro 79			
314	intp://www.manaria.iaaaaimoviidiii/into_//			
315	EN: Opinion 85: Regulatory options for automated vehicles			
316	http://www.jukkarannila.fi/lausunnot.html#nro 85			
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318	EN: Opinion 87: Assessing privacy and big data on the Internet			
319	http://www.jukkarannila.fi/lausunnot.html#nro_87			
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321	EN: Opinion 90: Consent / Information and Privacy Commission NSW (IPC)			
322	http://www.jukkarannila.fi/lausunnot.html#nro_90			
323				
324	EN: Opinion 103: About lobbying - New South Wales			
325	http://www.jukkarannila.fi/lausunnot.html#nro_103			
326 327	EN. Oninian 115: Framework for Secondary Use of My Health Decord Date			
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ANNEX 2

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