

| Commentor | Туре | Page # | Line # | Section | Comment (Include rationale for comment) | Suggested change |
|------------|------|-----------|-----------|-----------|---|------------------|
| | | | | | It would be helpful if the release of v. 1.0 of | |
| | | | | | the Framework in February 2014 is | |
| | | | | | accompanied by a clear message to companies | |
| | | | | | who perform key functions as part of the | |
| | | | | | Critical Infrastructure, specifically to | |
| | | | | | Company Boards of Directors and C-level | |
| | | | | | officers, that it is requested that they do several | |
| | | | | | things to ensure their organization is | |
| | | | | | appropriately addressing cybersecurity risk to | |
| | | | | | improve the security and resilience of the | |
| | | | | | critical infrastructure; more specifically: Be | |
| | | | | | sure that you have an enterprise risk program | |
| | | | | | that includes cyber/information risk, and that | |
| | | | | | the program is owned by a committee of the | |
| | | | | | Board of Directors. Huawei has found that it | |
| | | | | | is essential to provide the Board of Directors | |
| | | | | | with visibility and responsibility for end-to- | Include |
| | | | | | end cyber security is essential to an effective | strengthened |
| | | | | | program. At Huawei, the Vice Chairman of | message to |
| | | | | | the Board chairs the Global Cyber Security | Boards of |
| | | | | | Committee that includes not only company- | Directors and |
| | | | | Note to | wide cybersecurity leadership, but also senior | C-level |
| Andy Purdy | ed. | p. i | 14 | reviewers | officials of the company including the business | Officers. |



| units themselves. This helps to ensure that | |
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| cyber security is imbedded into the | |
| organizational design, with governance of the | |
| risk management strategy and the internal | |
| control framework being the starting point for | |
| the design, development, and delivery of good | |
| cyber security. The message to boards of | |
| directors should include the following: that | |
| they conduct an enterprise risk assessment, at | |
| least focused on cyber/information risk. Then, | |
| considering the spirit and substance of the | |
| NIST Framework: 1) Determine which | |
| categories of the Framework are applicable to | |
| their organization, and if any are not | |
| applicable, determine why not. 2) For each | |
| category determine which standard(s) or best | |
| practice(s) does, or will, their organization | |
| choose to follow. 3) Determine the current | |
| state of the organization's risk posture relative | |
| to the framework, and the target state that the | |
| organization should strive for, and develop and | |
| begin to implement a plan with resources to | |
| achieve that target state. 4) Determine the | |
| metrics and milestones that will be tracked and | |
| reported to the C-level along the path to the | |
| target state, and the metrics that will be tracked | |



| | and reported to the C-level regarding the organization's risk posture going forward. 5) Determine whether the organization has an internal compliance program that adequately takes into account the cyber issues covered by the Framework. 6) Recommend that such organizations consider getting independent, input at least from outside the business unit(s) being evaluated regarding each of these determinations at the start of this process for the same reasons that there are independent financial audits and, going forward, get independent, input (at least from outside the business units if not externally) periodically or on an ongoing basis, regarding the risk posture, in general, and progress toward the target state and the risk status going forward, in particular. | |
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| | | | | | Although the idea of having tiers that represent | |
| | | | | | progressions along a path an organization | |
| | | | | | follows toward a target state is appealing, the | |
| | | | | | description of the tiers – specifically the | |
| | | | | | distinctions between the tiers are not | |
| | | | | | sufficiently substantial or clear enough to be | |
| | | | | | applied consistently and with meaningful effect | |
| | | | | | (for example, the distinction between tier 1 and | Request |
| | | | | | tier 2). If the tiers mapped as needed, one should | comment |
| | | | | | be able to provide a graphic illustration of how | regarding the rationale for the |
| | | | | | the categories and subcategories map to the tiers. | use of tiers, and |
| | | | | | I don't think that is possible at present. | whether and |
| | | | 332- | | Take the second of process. | how to develop |
| Andy Purdy | ed. | p. 9 | 385 | 2.4 | | tiers. |

| | | | | | I hope NIST will encourage key stakeholders to | |
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| | | | | | launch an effort(s) to stand up a conformity | |
| | | | | | assessment program for ICT products, perhaps | |
| | | | | | beginning at the sector level. Huawei has found | |
| | | | | | in the evaluations we have done of our products | |
| | | | | | – and the evaluations others have done of our | |
| | | | | | products – that it is essential to provide vendors | |
| | | | | | with objective information about their products | |
| | | | | | to provide feedback to their internal development | |
| | | | | | and manufacturing process, as well as to provide | |
| | | | | | those who buy ICT products with objective | Suggest adding |
| | | | | | information about the security/assurance status | Suggest adding a call to action |
| | | | | | of the products. Mechanisms to help make | to the private |
| | | | | | buyers more informed will enable them to be | sector to lead on engaging about |
| | | | | | | conformity |
| | | | | | more discriminating about what they buy. It is | assessment to |
| | | | 540 | App. C2 | demonstrable that very insecure products are | inform |
| Andy Purdy | ed. | p. 37 | 549- 566 | Conformity Assessment | being deployed unnecessarily into the nation's | Framework version 2.0. |



| networks (as well as globa | ally). The process of | |
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| independent evaluation | both internally | |
| (separation of duties) and | externally by | |
| independent third parties | has helped us, and will | |
| no doubt help others, raise | e the bar on the | |
| products that we/they offe | er and release to | |
| customers and will raise t | he bar on the | |
| purchasing/using side for | RFPs and the ability of | |
| customers to make much | more informed | |
| decisions about what to p | urchase and ask/require | |
| of vendors. The value of | a Consumer Reports or | |
| Underwriters Laboratory | kind of a model for ICT | |
| products will be an impor | tant contributor to | |
| making our nation's (and | global) networks and | |
| systems more secure. Hu | awei recently published | |
| a security white paper tha | t goes into some detail | |
| about Huawei's global ass | urance program. | |



| Huawei invites constructive feedback about our | |
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| approach and suggestions about how to facilitate | |
| greater global collaboration hopefully leading to | |
| the use of common standards, best practices, and | |
| norms of conduct to help reduce global ICT risk | |
| while raising the security/assurance | |
| characteristics of ICT products and services. | |
| The paper can be found at the following link: | |
| http://pr.huawei.com/en/connecting-the- | |
| dots/cyber-security/hw-310548.htm. Information | |
| about product evaluation can be found in the | |
| paper at p. 24 (Section 7.6 Verification: Assume | |
| nothing, believe no one, check everything). | |
| It would be helpful if NIST could consider | |
| convening or encouraging others in government | |
| and in the private sector, perhaps at the sector | |
| level (e.g., IT SCCs (and ISACs)), to consider | |



| | convening a work stream(s) leading to some ideas, options, and perhaps straw men for a conformity assessment program. At the sectoral level, companies should find that they have a common interest in the quality/assurance characteristics of what they buy, and that together they could come up with a set of baseline requirements that they would all like their products to have, and encourage vendors/suppliers to test their products/services to those standards. | |
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| | | | | | As indicated in NIST SP 800-161, several GAO | | |
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| | | | | | 713 indicated in 19151 51 600-101, several GAO | | |
| | | | | | reports, and the White House Cyberspace Policy | | |
| | | | | | Review (2009), supply chain risk is an important | | |
| | | | | | part of the risk landscape that an organization | | |
| | | | | | needs to include in its risk management program. | | |
| | | | | | Accordingly, for the NIST Cybersecurity | | |
| | | | | | Framework to contribute to achieving the | | |
| | | | | | purpose of the Executive Order on | | |
| | | | | | Cybersecurity, to promote the security and | | |
| | | | | | resilience of the critical infrastructure, supply | | |
| | | | | | chain risk must be addressed. Those who | | |
| | | | | | purchase ICT products and services whether | Suggest adding a call to action | |
| | | | | | government, critical infrastructure, or other | to the private | |
| | | | | | private organizations should include supply | sector to lead on | |
| | | | | | chain risk requirements in their procurement and | engaging about supply chain | |
| | | | | c. 8 - Supply | purchasing decisions. Huawei has provided a | risk to inform | |
| | | | 633- | Chain Risk | | Framework | |
| Andy Purdy | ed. | p. 39 | 645 | Management | detailed overview of its approach to global | version 2.0. | |



| assurance including supply chain/procurement |
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| risk in it security white paper referenced |
| earlier (http://pr.huawei.com/en/connecting-the- |
| dots/cyber-security/hw-310548.htm). |
| Information about supply chain and procurment |
| assurance efforts can be found at pages 27-31 |
| (7.7 Third-party supplier management - |
| subsections on supply chain and procurement |
| security). |
| We hope that supply chain will be addressed and |
| incorporated into the Cybersecurity Framework |
| in Version 1.0 or, more likely, in Version 2.0 that |
| will hopefully be released later in 2014. We |
| hope that the Open Group Trusted Technology |
| Forum Supply Chain Standard and Accreditation |
| Process will be explicitly referenced in the |
| Framework when supply chain risk is addressed |



| | | more comprehensively. | |
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