FAQ on Trusted Computing Group and the Internet Engineering Task Force

February 2013

Q. What is the Trusted Computing Group (TCG) doing with the Internet Engineering Task Force (IETF)?
A. Several years ago, TCG offered several TCG specifications to the IETF for standardization there. So far, IETF has approved three IETF standards based on those TCG standards. These TCG standards have been part of the TCG's Trusted Network Connect (TNC) architecture for years. Now they are also part of the IETF's long-standing series of Internet standards: the RFC series.

Q. Which TCG documents have been approved by IETF?
A. TCG's IF-TNCCS 2.0 and IF-M 1.0 were approved in 2010 and TCG's IF-T for TLS was approved in 2013. IETF uses different names for these documents. In the IETF nomenclature, IF-TNCCS 2.0 is called PB-TNC, IF-M 1.0 is called PA-TNC, and IF-T for TLS is called PT-TLS. In any case, the IETF and TCG documents are equivalent and fully interoperable.

Q. Why is this important? Aren't people using the TNC standards already?
A. The TNC standards for Network Access Control (NAC) and network security are widely used. Dozens of products, thousands of customers, and millions of users use them every day to ensure that their networks are secure.

However, some customers and vendors have held back from adopting the TNC standards because the TCG is an industry consortium and not an official standards body. Having the IETF's approval on these standards means that all parties have agreed on these standards as the proper way to do NAC on the Internet. Developers and customers can use the standards, knowing that they have been widely reviewed and agreed upon by the IETF's thousands of expert participants.

Q. How does this effort benefit customers?
A. IETF approval of these TNC standards will lead to more vendors implementing the standards. This will benefit customers in that products will become more widely interoperable and therefore easier to deploy and maintain. Over time, more and more products will have TNC support built in. Customers will be able to easily manage all of their network endpoints using these standards, leading to reduced costs and increased security.

Q. What does this mean for the TNC standards?
A. The TNC standards adopted by the IETF are just one small part of the overall TNC architecture, which also includes standards for other aspects of network security, such as clientless endpoint handling, hardware health checking, behavior monitoring, and information sharing among security devices. The TCG will continue to develop the TNC architecture and standards, adding features as needed.

Q. Why did the IETF decide to adopt the TNC standards?
A. As the IETF's Network Endpoint Assessment (NEA) Working Group defined requirements for NAC, it became apparent that the TNC standards met those requirements best. Therefore, it made sense for IETF to adopt these rather than developing separate, different standards.

Q. Which vendors have been involved in defining these standards?
A. Between the TCG TNC Work Group and the IETF NEA working group, a large number of vendors have been involved. It is not possible to list all of them. However, it is worth noting that the standards approved by the IETF and TCG had editors from Cisco, Intel, Juniper, Microsoft, and Symantec. This team worked together amicably to arrive at the resulting standards.

Q. What capabilities do these standards provide?
A. The fundamental capability provided by these standards is the ability to check the health (security posture) of an endpoint (network-connected device) and grant an appropriate level of network access. IF-TNCCS 2.0 is defines a standard protocol for health checking endpoints. IF-M 1.0 defines a standard format for the most basic health checks (e.g. anti-virus status). And IF-T for TLS defines a standard way to transfer the health check across the network.

Q. Is this the first time that TCG has worked with the IETF in this manner?
A. Yes, it is the first time that TCG standards have been accepted and approved by the IETF.

Q. When do you expect to see products that will use these TCG-IETF standards?
A. Some products already support the protocols. More should be introduced soon, as customer demand for the standards grows.

Q. Will TCG provide certification for products that implement these standards?
A. TCG has a well-established TNC Certification Program that helps customers find products that properly implement the TNC standards. While no specific date has been announced for extending the TNC Certification Program to include the TCG-IETF standards, it is a likely next step.

Q. Will existing products based on earlier versions of the TNC standards work with future products based on the new versions of the TNC standards that the IETF has approved?
A. Due to the large installed base of products that implement the TNC standards, we expect that NAC vendors will include support for both versions of these standards in their NAC servers, thus providing a graceful client upgrade path.

Q. What's next for the IETF's work in the area of NAC industry standards?
A. The IETF NEA Working Group has almost completed its work. They have one more standard to finish: PT-EAP, which will be equivalent to TCG's IF-T for Tunneled EAP Methods protocol. Once this standard is completed (estimated for late 2013), the IETF will have delivered standards for all the endpoint health-checking protocols.

Q. IETF calls their documents RFCs, which is short for "Request for Comments". Does that mean that the documents are not yet standards?
A. No. The RFC name is historical, dating back more than 40 years. The RFC series includes all Internet Standards, as well as informational and experimental documents. The documents described here are on the IETF's standards track.

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