



White Paper

Manage Supply Chain Risk with TAA

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The Challenge

Third-party OEM compatible transceivers offer service providers and network operators a proven strategy to both reduce costs and reduce time to market for new services. The global trade environment requires each organization to better understand the global supply chain, applying new due diligence to safeguard from not only inferior products, but potential risks to their organization.

The third-party marketplace is both vast and global. A simple Google search for compatible transceivers will uncover many shapes and sizes of third-party transceiver suppliers that can confuse even savvy network equipment consumers. Potential suppliers range from brick-and-mortar operations to web-front companies with few apparent qualifications.



Supply chain
due diligence is
difficult.



Global market
with many
participants.



Few qualifications
or certifications.

Background

A) TAA Qualification

The US Federal Government Trade Agreements Act (TAA) is a requirement to market products on the General Services Administration (GSA) schedule. TAA compliance is not an attestation standard, rather a certification of compliance offered by the Customs and Border Protection (CBP) agency. In the case of networking gear, a very high percentage of switches, routers and transceivers are manufactured outside of a TAA designated country. Many manufacturing centers that specialize in networking and IT equipment (such as the Peoples Republic of China, Malaysia, and Thailand) are not currently included in the list of designated countries. While TAA was established to foster fair and open global competition, its requirements for demonstrating supply chain control are widely transferable well beyond purposed US Federal Government purchasing.

The components of TAA offer a useful guidepost to network operators seeking to take control of their global supply chain.

B) Country of Origin – The country of origin is the country in which the product is manufactured or produced. For the purposes of TAA compliance, country of origin must be the United States or one of 126 designated countries.

C) Designated Countries List – The TAA designated countries list is comprised of the World Trade Organization Government Procurement Agreement Countries, Free Trade Agreement Countries, Least Developed Countries, and Caribbean Basin Countries. Notably absent from the list are the Peoples Republic of China, Malaysia, and Thailand.

The challenges of choosing third party optics

Substantial Transformation Process



Process of creating a new product with "a distinctive name, character or use"

This new product assumes the Country of Origin where substantial transformation occurs. Country of Origin for TAA is not characterized in the same manner as 'Made in country x' labels for other trade regulations. Thus, suppliers with TAA products are responsible for documenting substantial transformation. Suppliers must continually maintain:

- Documentation of every supply chain agreement, such as a letter of supply.
- Proper, correct documentation of the country of origin, including origin markings, the country of origin code, and the most current country of origin.

The takeaway for network operators is that the diligence in process and procedures required for TAA compliance can be directly applied to the real-world requirement of full responsibility for the global supply chain.

Optical Transceivers

The Peoples Republic of China, or China, is the primary manufacturing center for fiber optic transceivers. Transceivers produced in China fill the global supply chains of OEM switch vendors and third-party compatible suppliers alike.

D) Substantial Transformation – Product manufactured outside of a designated country can be substantially transformed in the United States or a designated country to create a new product with "a distinctive name, character or uses number 1".

Transceivers are physically assembled and often programmed prior to import into the United States from China.

The CBP filed a determination on the substantial transformation of transceiver products imported from non-designated countries.

Customs and Border Protection has released its final determination concerning different versions of certain network transceivers and high-speed cabling devices that require software to be functional. CBP concluded that "blank" network transceivers imported into the U.S. where proprietary software was first downloaded were substantially transformed in the U.S., whereas network transceivers already programmed with generic software when imported were not substantially transformed by subsequent replacement of the generic software with proprietary software that enhanced and broadened functionality allowing interoperability with different OEM systems.²

The CBP's determination outlines a very specific distinction for transceiver compliance with TAA. The ruling that 'blank' or transceivers without EEPROM programming can only be substantially transformed. Third-party compatible optics suppliers offering TAA optics must not only follow CBP's determination, they must document and demonstrate that they do so. TAA audits by the GSA require Country of Origin documentation be produced immediately upon request. Suppliers failing to meet this burden will lose TAA compliance.

¹Anheuser-Busch Brewing Ass'n v. United States, 207 U.S. 556 (1908)

²Federal Register, Vol. 81, No. 104, Tuesday, May 31, 2016



Implications for Service Providers and Network Operators

Suppliers must adhere to strict regulations and directives in order to maintain compliance with TAA. TAA certified suppliers can provide documentation of supply and process required to satisfy the supply chain due diligence of even the most risk adverse organizations.

TAA compliant third-party compatible suppliers must document the substantial transformation process from each blank transceiver received, through their programming and testing process. This proof of substantial transformation offers service providers and network operators of all sizes, and risk threshold, peace of mind that they are working with a quality supplier.

TAA Compliance Offers Supply Chain Assurance

Supply Transparency

Proof of Substantial Transformation

Country of Origin Documentation

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