**Title:** Building Irrefutable Trust throughout Computer Networks using Blockchains

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**Abstract:**  The backbone of every computer network, whether commercial or military, is trust in the companies that provide the hardware and software. The current paradigm of “defense in depth” provides measures across the tiers of a network to monitor, detect, filter, and block adversary vectors to steal, exploit, or destroy information or systems. Defense in depth is built from additional hardware and software added at key nodes and by design no individual node is trusted but is also defended and checked. Supply Chain and Financial communities over the last 5 years have been experimenting with block chain technologies to combat their trust gap between suppliers and customers. Block chain, Internet of Things, and Artificial Intelligence provide Big Data to commercial companies to optimize current supply chains and view real time situation reports. This paper studies the viability and benefits in cybersecurity of block chain boosted acquisitions for global computer networks and proposes military initiative to instigate block chain requirements in the invention stage of the product. Key attributes of these system of systems are developed into building a framework for a cost effective implementation of block chain technologies across the current supply chain from material to assembly to delivery for each hardware device. Software trust is considered for an innovative twist to the block chain process that will give integrity to lines of code that come originally and continued for the lifecycle of the system. The US military demands intrinsic properties exclusive of commercial vendors that, if unrequired or unvoiced, will necessitate higher buy in cost or lack of certain securities. With baked-in trust for each purchase that can be verified in real-time, global networks will be freed to conduct their business with certainty that their network is fighting for them.

**Keywords:** cybersecurity, risk, assessment, cyber, framework, acquisition, supply chain, block chain