2d Lt James Marvin

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According to the Merriam-Webster dictionary a weapon is defined as something used to injure, defeat, or destroy. In general, I agree with this definition even in the cyber context. To be a cyber weapon it must cause harm to the enemy in some way. Not all cyber tools hurt the enemy. Establishing network controls for your own network does not harm the adversary but is necessary to thwart commonplace attacks. The defensive tools may not be a weapon but they are part of the weapon system. General Skinner defined weapon systems in his senior leader perspective paper as “a combination of one or more weapons with all related equipment, materials, services, personnel, and means of delivery and deployment required for self-sufficiency1.” The defensive tools are the support equipment for the weapon system. You can’t begin to use the offensive weapons if you are not prepared for the counterattack from the enemy.

Instead of injure, defeat, and destroy I would use the terms disrupt, degrade, or destroy when referring to cyber weapons. A cyber tool that disrupts the technological capabilities of the enemy is a weapon. A physical parallel to this situation is if someone was shot with a tranquilizer dart. It renders someone unconscious and therefore disrupts their ability to conduct operations. A cyber example of this affect would be closing connections from various clients on their network to their server. The ability to connect isn’t permanently damaged its just disrupted. Degradation is another characteristic effect of a cyber weapon. A physical parallel to this would be if a firearm wounded an enemy combatant. This wound degrades their physical state. In the Cyber Realm this would be like a distributed denial of service where their bandwidth is throttled by extraneous requests. The network is still processing legitimate requests but at a significantly slower rate. Finally cyber weapons have the potential to destroy things in the virtual and real world. Lt Col Benjamin Hatch proposes that cyber weapons that cause large scale human casualties should be labeled as weapons of mass destruction2. Cyber weapons that can destroy networks and critical infrastructure are characterized as weapons.

Sources:

1. Skinner, R. J. (2013). *The importance of designating cyberspace weapon systems*. AIR AND SPACE POWER JOURNAL MAXWELL AFB AL.
2. Hatch, B. B. (2018). Defining a Class of Cyber Weapons as WMD: An Examination of the Merits. *Journal of Strategic Security*, *11*(1), 4.